CONNECTING CLEVELAND TO PITTSBURGH BY TRAIL:

Unlocking the Economic Potential of 200+ Miles of Trail

A FEASIBILITY STUDY OF THE INDUSTRIAL HEARTLAND TRAILS COALITION'S CLEVELAND TO PITTSBURGH CORRIDOR

PUBLISHED MARCH 18, 2020

rails-to-trails conservancy

Industrial Heartland Trails COALITION

Cleveland to Pittsburgh (C2P) Corridor

The Industrial Heartland Trails Coalition's (IHTC's) 1,500-miles-plus network vision spans 51 counties across Western Pennsylvania, northern West Virginia, eastern Ohio and the southwestern corner of New York. When complete, the trail network will comprise the largest shared-use trail system in North America for tourism, physical activity and recreation. The plan to complete the network is organized into mega corridors that group trails by geography.

The Cleveland to Pittsburgh multiuse trail corridor will travel from Cleveland, Ohio, to Pittsburgh, Pennsylvania. In addition to the IHTC trail network connection, a large portion (146 miles) of the C2P corridor will help complete the Great American Rail-Trail, a burgeoning 3,700-miles-plus multiuse trail spanning across the country between Washington, D.C., and Washington State. Learn more about the C2P corridor and the IHTC vision at ihearttrails.org.

- 1 Gap 1: **0.2 Miles**
- 2 Gap 2: **0.5 Miles**
- 3 Gap 3: **2.0 Miles**
- 4a Gap 4a: **30.1 Miles**
- 4b Gap 4b: **17.4 Miles**
- 5 Gap 5: **28.4 Miles**
- 6 Gap 6: **4.2 Miles**
- 7 Gap 7: **6.2 Miles**

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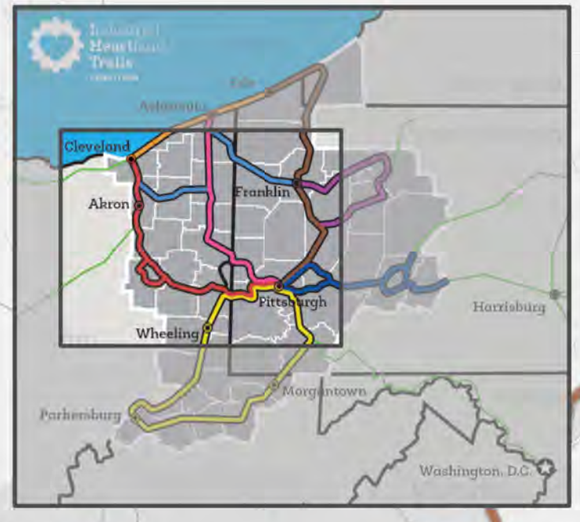
Open C2P Segment · Proposed C2P Segment · Great American Rail-Trail Route

Industrial Heartland Trails Coalition Network



Cleveland to Erie Corridor · Cleveland · Ohio & Erie Canal Towpath Trail · Cuyahoga · PA to OH Connector · Akron · Summit · Great American Rail-Trail to Columbus · OHIO · Massillon · Stark · Ohio & Erie Canal Towpath Trail · Bolivar · 3 · Zoar · Carroll · 4b · New Philadelphia · 4a · Tuscarawas · Bowerston · Harrison · Jefferson · Jewett · 5 · Conotton Creek Trail · Steubenville · Parkersburg to Pittsburgh Corridor · Brooke · WEST VIRGINIA · Hancock · Ashtabula to Pittsburgh Corridor · Washington · Weirton · 6 · Burgettstown · Panhandle Trail · Montour Trail · Coraopolis · 7 · Allegheny · Erie to Pittsburgh Corridor · Three Rivers Heritage Trail · Pittsburgh · Great Allegheny Passage · PENNSYLVANIA

0 5 10 20 Miles

Acknowledgments

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Study Authors

Leah Gerber, Rails-to-Trails Conservancy

Eric Oberg, Rails-to-Trails Conservancy

Kevin Belanger, Rails-to-Trails Conservancy

Trail Town content produced with support from Amy Camp, Cycle Forward

Contributors

The team expresses its appreciation to the following people and organizations that contributed to this study and were instrumental in shaping the project vision:

Valerie Beichner	Friends of the Riverfront
Jane Clay	Tuscarawas County
Darla J. Cravotta	Office of Allegheny County Executive Rich Fitzgerald
Aaron Dodds	Jefferson County Soil and Water Conservation District
Jeff Donahue	Washington County Department of Parks & Recreation
Andrea Irland	National Park Service, Rivers, Trails, and Conservation Assistance Program
Sara Maier	Cleveland Metroparks
Mark Miller	City of Weirton
Mike Paprocki	Brooke Hancock Jefferson Metropolitan Planning Commission
Dan Rice	Ohio & Erie Canalway Coalition
Mark Szeremet	Summit Metro Parks
Courtney Mahronich Vita	Friends of the Riverfront
Ned Williams	Montour Trail Council
Anna Withrow	Northern West Virginia Brownfields Assistance Center

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Cover Photo: Montour Trail in Pennsylvania | Photo by Milo Bateman

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About Rails-to-Trails Conservancy

Since 1986, RTC has served as the voice of the rail-trail movement, elevating the hard work of rail-trail supporters and advocates to Congress, public leaders and influencers from across America. We have set the precedent that rail-trails are must-have community assets—and we have established policies that ensure these trails are built. With more than 2,000 rail-trails and more than 36,000 miles of multiuse trails on the ground nationwide, RTC's focus is on linking these corridors, creating trail networks that connect people and places and transforming communities across the country.

RTC collaborates with its partners, the Pennsylvania Environmental Council and the National Park Service's Rivers, Trails, and Conservation Assistance Program, to lead and staff the Industrial Heartland Trails Coalition (IHTC). IHTC is one of RTC's TrailNation™ projects designed to demonstrate the outcomes that trail networks deliver in every type of community.

These TrailNation projects are incredibly unique—engaging hundreds of partners; touching geographically diverse communities; and ranging in focus from active transportation to tourism and equitable development, and in size from 35 miles to 2,700 miles across the American landscape. However, each project shares a common goal: to prove the potential of trails in delivering significant economic, health, transportation and environmental outcomes, and to serve as a replicable and inspirational model for trail networks nationwide. Learn more about IHTC at **ihearttrails.org** and RTC's trail network initiative at **trailnation.org**.

Executive Summary

Unlocking the Economic Potential of 200+ Miles of Trail

The small towns and cities between Cleveland and Pittsburgh are home to some of America's richest industrial heritage and history. Innovations in 19th-century transportation unlocked the region's potential, delivering new people and new economies, and fueling westward development and a booming industrial market nationwide. As these economies took hold, the "industrial heartland" emerged—from the coal mines of West Virginia to the steel mills of Pittsburgh and Cleveland.

Today, there is a new opportunity to reclaim the potential of the region and to leverage the declining industrial and extractive economies for an economic strategy that is built on outdoor recreation, tourism and trails.

This feasibility study outlines the path forward and the potential in connecting Cleveland and Pittsburgh over 200+ miles of multiuse trails in Ohio, West Virginia and Pennsylvania. The alignment of the 200-miles-plus Cleveland to Pittsburgh (C2P) corridor is primarily made up of existing rail-trails, unused or abandoned rail corridors, and canal corridors. The plan outlined in this study leverages the success of established and well-known trails like the Ohio & Erie Canal Towpath Trail, Conotton Creek Trail, Panhandle Trail, Montour Trail and Three Rivers Heritage Trail to stimulate the political will and development necessary to complete the 72 miles of trail gaps along the C2P route.

In Ohio and Pennsylvania in particular, the stories of economic opportunity and quality of life associated with each state's trails deliver optimism and promise for the counties, cities and towns along the corridor that have yet to capitalize on their potential trail economies. For example, the Ohio & Erie Canal Towpath Trail reports more than 2.5 million visitors each year, and a recent Rails-to-Trails Conservancy (RTC) Trail User Spending Impact Study found that $6.9 million was spent by the trail's users—visitors and locals alike.[1] In Pennsylvania, economic impact studies of the Great Allegheny Passage (**gaptrail.org**) have shown that the majority of the trail's users planned an overnight stay, which translates to direct spending at businesses in the community, who in turn report significant traffic from trail users along the corridor.

As trail systems grow, they generate opportunities for new investment in trailside businesses, recreation outfitters and tourism-related industry. In midsize cities and rural areas, trail systems support existing businesses and bring new dollars into the community. Trails increasingly demonstrate their significance in community transformation through economic activity by trail users, including visitors and locals. RTC studies further demonstrate the power of connecting trails in direct economic potential and trail usage. As trail gaps are closed, trail use increases by as much as 80% depending on the significance of the gap closure. The benefits of connectivity have ripple effects across the entire trail network, delivering increased trail use that is as much as 15% in other sections of the network.[2]

Communities along the C2P corridor are ideally positioned to benefit from a future long-distance multiuse trail economy. When connected, the trails within the corridor will be competitive in attracting visitors to the region while offering an important amenity for local residents—creating new opportunities to access the outdoors and be physically active, and also providing new active transportation routes to nearby destinations.

This feasibility study outlines the vision for the corridor, as well as the opportunities, challenges and costs associated with its completion. Building on previous mapping work and other local trail-planning efforts, this study does the following:

- Assesses the current conditions and feasibility of trail development within the alignment
- Provides an opinion of probable costs for acquisition and construction of each trail gap
- Presents recommendations and an action plan for completing the C2P corridor
- Serves as a comprehensive vision for connecting the C2P corridor in all three states, providing tools and resources for planners and partners who are working to build trails, improve community connections and encourage the use and stewardship of existing trails

Once connected, the C2P corridor will feed into more than 1,500 miles of multiuse trail that stretch across 51 counties in four states: Ohio, West Virginia, Pennsylvania and New York—one of eight mega corridors that comprise the Industrial Heartland Trails Coalition's (IHTC's) regional vision to leverage a burgeoning trail economy to deliver new opportunities to the people who live along its route. It also contributes 146 miles to the Great American Rail-Trail™, a signature RTC project and the nation's first cross-country multiuse trail, creating a route of 3,700+ miles that is separated from vehicle traffic and entirely walkable and bikeable between Washington, D.C., and Washington State.

As the possibilities of this corridor are explored, it's easy to become optimistic about its potential—which will be realized by leveraging the success of the existing trails to deliver the expertise and resources necessary to close trail gaps in communities that have yet to unlock their trail futures.

Introduction

Project Background

Imagine what's possible with a 1,500-miles-plus trail network that connects 51 counties in four states—person by person, town by town, community by community, state by state. This is the vision of the Industrial Heartland Trails Coalition (IHTC): establishing the industrial heartland as a premier destination offering a unique multiuse trail network experience that will stretch across New York, Pennsylvania, Ohio and West Virginia—from the shores of Lake Erie to the confluence of the Three Rivers in Pittsburgh and on to the Ohio River and Appalachian foothills in West Virginia.

The IHTC builds upon past efforts[3] to organize the trails community, connect regional trails to each other, leverage the cultural heritage of the region into a premier multiuse trail destination, and harness and amplify the benefits of the region's trail systems. Trail groups from the region joined together in the early 2000s, eventually forming a coalition in 2011, and branding itself the "Industrial Heartland Trails Coalition" in 2015 in an effort to collectively advance the vision of a trail network across the region.

Grouped by geography, eight identified trail destination corridors make up the IHTC network. The Cleveland to Pittsburgh (C2P) corridor extends from the shore of Lake Erie in Cleveland, Ohio—utilizing existing well-loved trails like the Ohio & Erie Canal Towpath Trail—and connects across the Ohio River into West Virginia. The corridor then includes the Panhandle Trail, which travels into Pennsylvania and connects to the Montour Trail into Pittsburgh.

What's in a Name?

Most of the "destination" corridors within the IHTC footprint are currently named for their two termini and often abbreviated (e.g., Cleveland to Pittsburgh becomes "C2P," Parkersburg to Pittsburgh becomes "P2P," etc.). These names and abbreviations are intended to be used to reference the work during the current planning and gap-filling phase. As existing trails are extended and new trails built to fill in the gaps, a branding and naming process could occur to create more marketable names and unique brands for each corridor.

Project Scope

This study is the first and only comprehensive look at the C2P corridor within the IHTC. The corridor is anchored by the two largest metro areas within the IHTC's footprint: Cleveland, Ohio, and Pittsburgh, Pennsylvania. Many communities large and small are found along the corridor, including (but not limited to) Akron, Massillon, New Philadelphia and Steubenville in Ohio; Weirton in West Virginia; and Burgettstown and Coraopolis in Pennsylvania.

Study Purpose

Take It off the Shelf: Putting This Study to Work!

This study is intended to serve as a comprehensive vision for connecting the future C2P multiuse trail corridor, including recommendations on steps partners can take immediately and over time. This study can serve a multitude of purposes, including, but not limited to:

- **Fundraising–**Facts about IHTC and the C2P corridor can be combined with information about trail benefits, case studies and cost estimation to produce well-positioned and accurate narratives about the project as a whole or in segments. Such narratives could aid the development of grant applications and proposals.
- **Forming an action plan–**The recommendations in the Getting There: Recommended Actions to Complete the C2P Corridor section can help partners develop an action plan to maintain progress in completing the C2P corridor.
- **Telling the story–**The information and case studies presented in this report can help partners engage elected officials, community leaders, grassroots organizations and community members by telling the story of IHTC and the C2P corridor.

Opposite: Ohio & Erie Canal Towpath Trail in Cleveland, Ohio | Photo by Eli Griffen

Project Partners

IHTC and the C2P corridor build on the previous and ongoing work of local trail organizations; conservation and community-based groups; and federal, state and local governments. More than 100 agencies and organizations are actively engaged in the IHTC effort.[4] Currently, more than two dozen organizations and local governments in Ohio, West Virginia and Pennsylvania have engaged in meetings and other activities, indicating their interest in connecting the C2P corridor. These organizations include, but are not limited to, the following:

Ohio

- Akron Metropolitan Area Transportation Study
- Bike Cleveland
- Brooke Hancock Jefferson Metropolitan Planning Commission
- Buckeye Trail Association
- Canalway Partners
- City of Akron
- City of Cleveland Planning Commission
- Cleveland Metroparks
- Cuyahoga County Planning Commission
- Jefferson County Soil and Water Conservation District
- Muskingum Watershed Conservancy District
- Northeast Ohio Areawide Coordinating Agency
- Ohio & Erie Canalway Coalition
- Rails-to-Trails of Wayne County
- Stark Parks
- Summit Metro Parks
- The Trust for Public Land
- Tuscarawas County Commissioners

West Virginia

- Brooke Hancock Jefferson Metropolitan Planning Commission
- City of Weirton
- Northern West Virginia Brownfields Assistance Center

Pennsylvania

- Friends of the Riverfront
- Montour Trail Council
- Washington County Department of Parks and Recreation

Regional Context

The C2P corridor spans a wide swath of land from the Lake Erie shore to the Ohio River Valley. It extends through three states—Ohio, West Virginia and Pennsylvania—and 11 counties. In Ohio, it traverses Cuyahoga, Summit, Stark, Tuscarawas, Harrison, Carroll and Jefferson counties. The corridor passes through the very northern panhandle of West Virginia in Brooke and Hancock counties and it also lies within Washington and Allegheny counties in Pennsylvania.

The potential impact of finishing the C2P corridor on local communities is massive, with more than 221,000 people living within a short half-mile of the corridor. Even beyond local communities, this part of the country is accessible to a vast number of people: Nearly 14 million people live within 100 miles of the C2P corridor. Amazing natural beauty and cultural resources are already driving a robust tourism industry. In 2017, $44 billion was generated from tourism in Ohio,[5] $43.3 billion in traveler spending was generated in Pennsylvania[6] and $4.1 billion annual direct spending from tourism was generated in West Virginia.[7] The completion of this trail corridor certainly has the potential to add significant economic opportunities for the communities along its route.

Economy

The history of the C2P region has been greatly influenced by its fossil-fuel economy and manufacturing industry. From the steel mills of Pittsburgh, Pennsylvania, and Cleveland, Ohio, to the coal mines of the Appalachian region, the people and communities of the industrial heartland have been closely tied to these industries. Because of this reliance, the steady decline in both manufacturing and coal mining has created economic hardship throughout the region. The closing of mills, factories and mines has taken a toll on these communities.

Economically, places like Cleveland, Ohio; Akron, Ohio; and Pittsburgh, Pennsylvania, have seen some success in diversifying their employment base through a mixture of medical, education and advanced manufacturing sectors. Smaller communities along the corridor have been working to redefine and market themselves as attractive places to live, work and play. Entrepreneurial opportunities in smaller towns will certainly be increased through a completed regional trail system like the IHTC network, and the C2P in particular.

The "Trail Town" concept has proved effective in helping communities maximize the benefits that visitors can bring. Since 2007, this approach to community development has allowed established trail systems to attract many business opportunities, from lodging, bike shops and guided tour companies to food and drink establishments. These will be magnified through the C2P corridor also being part of the Great American Rail-Trail, a developing cross-country route stretching 3,700+ miles through 12 states and the District of Columbia. Serving as an iconic landmark route for the nation, the Great American will enable communities along the 146-mile corridor between Pittsburgh, Pennsylvania, and Clinton, Ohio, to benefit not just from local and regional visitation, but tourism on a national and international scale.

Market Street Bridge connecting Steubenville, Ohio, to Weirton, West Virginia, across the Ohio River | Photo courtesy Flickr user cmh2315fl, CC by 2.0

Health

Ohio, West Virginia and Pennsylvania have been beset with declining health outcomes for decades. While the entire country has seen increases in chronic diseases, many caused by sedentary lifestyles, this area has been hit particularly hard. Obesity rates in all three states are above 30%, with Ohio having the 11th highest rate in the country and West Virginia having the highest.[8] There has, however, been increased awareness that proximity to walking and biking facilities can lead to an increase in physical activity.[9]

The Plan Review (page 7) highlights communities in which trail development has been listed as a priority.

Existing and Connecting Trails

The Segment Analysis (page 11) describes the relationship of the C2P corridor to the communities it connects, details current conditions and recommended improvements for existing trails within the corridor, and indicates where existing and planned connecting trails could enhance community access to the corridor.

The existing trails within the C2P corridor—the Cleveland Foundation Centennial Lake Link Trail, Ohio & Erie Canal Towpath Trail and Conotton Creek Trail (Ohio); the Panhandle Trail (West Virginia); and the Panhandle Trail, Montour Trail and Three Rivers Heritage Trail (Pennsylvania)—already connect and serve many cities and communities. Unlocking the potential for economic impact and increased community benefits, however, will occur when all the gaps have been filled and each community is connected to the next.

Several other existing trails connect to the C2P corridor and will further extend the reach of the trail network. In northeast Ohio, many regionally significant trails connect to the corridor. In Summit County, Ohio, the 34-mile multipurpose Bike and Hike Trail heads east as part of the IHTC Ohio–Pennsylvania Connector Corridor. From Akron, Ohio, the Freedom Trail extends to Kent, Ohio, and the 10-mile Portage Hike and Bike Trail. The 326-mile Ohio to Erie Trail shares the C2P corridor from Massillon to Cleveland, Ohio. Stretching from Massillon all the way to Cincinnati, Ohio, the Ohio to Erie Trail serves as a major cross-state connection to the C2P.

In West Virginia, the C2P has an opportunity to connect to the Brooke Pioneer Trail, which takes trail users all the way to Wheeling, West Virginia. Along that route, the soon-to-be-built Wellsburg Bridge will have a separated multiuse path to cross the Ohio River. At the eastern end of the C2P in Pittsburgh, Pennsylvania, the corridor meets the 150-mile Great Allegheny Passage (**gaptrail.org**), an iconic 150-mile rail-trail that runs from Cumberland, Maryland—where it connects with the 184-mile C&O Canal Towpath—to Pittsburgh, Pennsylvania. The Great Allegheny Passage was built in partnership between state agencies and many local trail groups and volunteers (learn more about how you can support the GAP at **gaptrail.org**). Altogether, the C2P holds the potential of connecting 580+ miles of trail when these gaps are filled.


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C2P Corridor Alignment and Segment Analysis Methodology

This section describes how the corridor alignment was determined, summarizes stakeholder and public engagement processes that informed this study's content and recommendations, and concludes with a comprehensive review of existing plans that continue to inform and support trail development along the Cleveland to Pittsburgh (C2P) corridor.

Development of Alignment

The C2P corridor's development is the latest in a series of corridor projects that form the Industrial Heartland Trails Coalition (IHTC) network. In the early 2000s, trail-building groups in Pennsylvania, West Virginia and Ohio formed a Tri-State Trails Initiative to discuss many of the connections that now make up the network of trails IHTC is working to complete.

In 2010, the "Power of 32" regional visioning project engaged thousands of people across 32 counties in Maryland, Ohio, Pennsylvania and West Virginia to create a shared economic development and community revitalization vision for the future. IHTC grew out of this project, formalizing in 2011 to define the trail corridors, identify gaps in the trail network and develop mapping technology to support the overall effort.[10] These initial efforts relied on the input of trail advocates and local planning professionals, who produced a trail connectivity analysis in 2014. The connectivity analysis largely defined the alignment of major corridor "spines" of the trail network.[11]

Linking the two largest metro areas in the IHTC region, Cleveland, Ohio, and Pittsburgh, Pennsylvania, the C2P corridor has been long in the making. A network of existing trails has been expanding throughout the IHTC region since the 1980s. These existing trails serve as the backbone for the C2P corridor.

Stakeholder and Partner Engagement

An array of dedicated stakeholders and partners shaped the alignment of the C2P corridor and contributed to the development of this study through working group meetings, one-on-one meetings and site visits.

Efforts to develop a strategy for the C2P corridor began in 2015. While a general corridor route was apparent based off existing long-distance trails, numerous individual meetings and site visits were required to determine the remaining corridor route. The C2P Corridor Working Group has met biannually since 2015, working to determine the best alignment and route forward. Of note were the I "Heart" Trails Community Chat public meetings hosted in New Philadelphia and Steubenville, Ohio. Amy Camp of Cycle Forward hosted these conversations in 2017, focusing on trails and Trail Town opportunities.

Rails-to-Trails Conservancy (RTC) also held meetings in Jefferson County, Ohio, in conjunction with the Jefferson County Soil and Water Conservation District. Two on-site meetings and a site visit were integral to determining a potential route through Ohio's Jefferson, Harrison and Tuscarawas counties. Each public and individual meeting held since 2014 has informed and led to the creation of this C2P corridor feasibility study.

Plan Review

Segments of the C2P trail corridor appear in various forms in several plans at the state, county/regional and local levels in Ohio, West Virginia and Pennsylvania. This Plan Review analyzes the available regional and statewide comprehensive plans, long-range transportation plans, comprehensive economic development strategies, and miscellaneous plans and field surveys that mention relevant trails and trail networks.

The development of this Plan Review revealed that "trails" are generally referenced and often prioritized in local, regional and state plans relating to transportation, recreation, health and economic development. Moving forward, state and local plans can and should highlight the existence of the C2P corridor to further leverage support for trail development, accompanied by specific action items or recommendations that will advance gap-filling at the local level. Including this project in such plans will be important for future funding and construction priorities.

Statewide Plans

Two primary themes emerged from reviewing the statewide plans. First, there is a strong public demand for trails, bike lanes and sidewalks. Multiple statewide and local plans noted a significant demand for new and improved active transportation infrastructure. Plans noted respondents' requests for this infrastructure through public meetings, public comment periods and surveys.

Second, the plans demonstrated a call for increased strategic trail development planning and prioritization. Multiple plans drew attention to the importance of prioritizing trail projects based upon existing networks, community needs and political processes. For example, the Pennsylvania Land and Water Trail Network Strategic Plan prioritizes trail development by listing the state's top 10 trail gaps.

Ohio

The Ohio Department of Natural Resources' **2013 Ohio Statewide Comprehensive Outdoor Recreation Plan**[12] used focus groups and online surveys to confirm that multiuse trails are the most important recreational facilities for Ohio residents. Focus group and survey respondents called for more trails closer to home, improved trail signage and better trail connectivity.

The Ohio Trails Vision[13] was published in 2019 with strong support from the Ohio Legislative Trails Caucus, driven by a demand for increased trail development in the state. RTC worked with plan

Opposite: Ohio & Erie Canal Towpath Trail winding beneath the Cuyahoga Valley Scenic Railroad | Photo by Bruce S. Ford

authors to include the Great American Rail-Trail in the plan. The Great American Rail-Trail and C2P corridor follow the same alignment from Pittsburgh, Pennsylvania, to Clinton, Ohio. Ohio's dedication to trail development is mirrored in other state plans including **Access Ohio 2040**,[14] Ohio's long-range transportation plan.

West Virginia

In 2010, the West Virginia Department of Transportation (WVDOT) prepared its **Multi-Modal Statewide Transportation Plan**[15]—mandated by federal transportation legislation that requires each state to maintain an up-to-date, 20-year-plus transportation plan that increases safety, security, accessibility and mobility for motorized and non-motorized users. In the process of developing its 2010 plan, WVDOT held a series of public meetings and opened a public comment period.

Approximately 47% of the received public comments referenced a desire for the state to make greater investments in promoting walking, bicycling and transit. At the first round of public meetings, participants were presented with an activity to set their own statewide transportation spending priorities based on fiscal constraints. The largest percentage of the participants' desired spending (27%) was devoted to bicycle and pedestrian transportation projects. Despite this public focus, the Multi-Modal Statewide Transportation Plan did not include a section on statewide walking or bicycling priorities, and the state has not identified spending to promote walking or bicycling projects.

In 2015, the **West Virginia Statewide Comprehensive Outdoor Recreation Plan (SCORP)**[16] was released by the West Virginia Development Office. Consistent with national trends and prior West Virginia SCORP surveys, walking continued to be West Virginia residents' first choice for physical activity. The availability of walking trails was listed as a first or second priority by survey respondents—especially residents living in rural areas. The SCORP notes that residents living in rural areas often expressed being too far from safe walking areas and stand to gain the most from trails and more accessible walking opportunities.

Pennsylvania

In 2009, the Pennsylvania Department of Conservation and Natural Resources identified 107 trail gaps in Pennsylvania, with this number increasing to 208 trail gaps in 2014. As a result, the **Pennsylvania Land and Water Trail Network Strategic Plan**[17] includes Pennsylvania's top 10 trail gaps in an effort to establish priority trail projects in the state. While none of the trail gaps listed are located along the C2P corridor, there may be an opportunity to include gaps along the C2P corridor in Pennsylvania's top 10 list in the future.

County and Regional Plans

Many of the 11 counties along the C2P route in Ohio, West Virginia and Pennsylvania have regional or county plans that mention support for trail development. Support for trails, specifically rail-trails, was a common theme found throughout county and regional plans in Ohio. **The Jefferson County Trails and Greenways Plan**[18] supports trail development throughout the county, while also recognizing obstacles such as having few abandoned rail corridors.

The Tuscarawas County Comprehensive Land Use Plan[19] (2004) and **Stark County's Creating Quality Spaces and Destination Places plan**[20] (2014–2018) discuss the use of a variety of corridors for trail development, including rail-trails. Both plans proudly describe the industrial history of the region—including eastern Ohio's legacy of mining and steel production—while acknowledging the community patterns that were created from these industries. Rail-trails offer a unique opportunity to showcase eastern Ohio's history and create new opportunities for community members.

The Brooke Hancock Jefferson Metropolitan Planning Commission (BHJ-MPC), in northern West Virginia and Jefferson County, Ohio, takes a progressive approach to rail-trail planning in its **2040 Regional Transportation Plan Review and Appraisal**[21] by listing certain rail lines that would be ideal for trails. In the 2040 plan, BHJ-MPC states that if these rail lines are ever abandoned, the state should railbank them and turn them into trails.

Allegheny Places: The Allegheny County Comprehensive Plan,[22] published in 2008, builds upon Allegheny County, Pennsylvania's **1995 Allegheny County Greenways Plan**. The 2008 plan discusses the Three Rivers Heritage Trail and its role in allowing users to access the riverfront in the Pittsburgh, Pennsylvania, area. The plan also mentions a lack of access to regional parks for people dependent on public transportation and the role that trails may play in creating equitable access to green space.

Local Plans

Several cities along the C2P corridor have local plans that discuss connectivity via trails. The theme of the **Connecting Cleveland 2020 Citywide Plan**[23] is people, places and opportunities. In it, greenways are highlighted as a means to connectivity. The plan also emphasizes connections to link people to diverse opportunities available in the city—opportunities that, for some city residents, are physically close but yet have remained out of reach due to transportation barriers.

Projects that will allow for these opportunities include the Red Line Greenway, which will connect multiple west-side neighborhoods to the Ohio & Erie Canal Towpath Trail and downtown Cleveland, as well as the Downtown Cleveland–Slavic Village connector trail, which will bring residents into downtown and the lakefront. These types of projects will give residents access to employment centers, cultural institutions and natural resources.

Trails provide access to fishing in Cook County, Illinois. | Photo courtesy Forest Preserves of Cook County

Akron's 2016 **Bike Plan**[24] seeks to increase connectivity within the city limits through trails and bike infrastructure, and to create a framework for educating residents on bike safety and promoting increased ridership. The 2013 **Steubenville, Ohio, Comprehensive Plan**[25] plans to use connectivity as a means to promote healthier lifestyles in the city. The plan mentions the creation of a greenway loop connecting the downtown to the western portion of the city, which could connect the C2P corridor to downtown Steubenville and the surrounding area.

Including the Project in Future Plans

IHTC, the C2P corridor and the individual projects these trail networks comprise should be included in future plans and plan updates. This approach was demonstrated in Ohio in partnership with the Ohio Department of Natural Resources, which incorporated the C2P corridor and the Great American Rail-Trail as an example corridor priority within its 2019 state trail plan, The Ohio Trails Vision.

Comprehensive economic development strategies are intended to be updated annually, while comprehensive plans and transportation plans are generally updated every 10 years. C2P Corridor Working Group partners are ready to champion the projects within the corridor moving forward to help each other fill corridor gaps.


WELCOME AKRON WELCOME AKRON WELCOME
OHIO & ERIE
CANALWAY
5% GRADE
DOWNTOWN
AKRON

Segment Analysis

The Cleveland to Pittsburgh (C2P) corridor will include 216 to 229 miles of trail between Cleveland, Ohio, and Pittsburgh, Pennsylvania (Table 1). Of the corridor length, 160 miles are already developed as multiuse trail, with between 56 and 69 miles yet to be developed. This section describes the corridor segment-by-segment from west to east. The following Segment Analysis is divided into two types of segments: existing trails (i.e., "open trails") and gaps in the trail network (i.e., "trail gaps").

For open trails, this report discusses the existing condition of the trail, any recommended improvements and the costs associated with those improvements. For trail gaps, this report discusses trail characteristics and recommended alignment, trail and trailhead facilities, proposed easements and property acquisition, and opinion of probable costs.

Various applicable case studies and partners informed the opinions of probable costs. Where needed, this analysis also considered comparable examples from around the country to present the widest range of possible costs for each element. Cost estimation details found in Appendix A outline the values and case studies used for each element.

Note: Please see Trail Gap 4 for a full explanation of mileage included in the C2P corridor.

Table 1 – C2P Segment Mileage

Segment Name	Status	Segment Length (in Miles)
Cleveland Foundation Centennial Lake Link Trail	Open	0.8
Trail Gaps 1 & 2 – Cleveland Foundation Centennial Lake Link Trail (Whiskey Island to Irishtown Bend)	Gap	0.7
Ohio & Erie Canal Towpath Trail	Open	101
Trail Gap 3 – Ohio & Erie Canal Towpath Trail (Bolivar, Ohio)	Gap	2.0
Trail Gap 4 – Ohio & Erie Canal Towpath Trail (Zoar to Bowerston, Ohio)	Gap	Option 4a: 30.1 Option 4b: 17.4
Conotton Creek Trail	Open	11.5
Trail Gap 5 – Jewett to Ohio–West Virginia State Line	Gap	28.4
Trail Gap 6 – Ohio–West Virginia State Line to Weirton, West Virginia	Gap	4.2
Panhandle Trail	Open	20.5
Montour Trail	Open	17.5
Trail Gap 7 – Coraopolis to Pittsburgh, Pennsylvania	Gap	6.2
Three Rivers Heritage Trail	Open	5.8
TOTAL		**216–228.7**

Opposite: Ohio & Erie Canal Towpath Trail in Ohio | Photo by Eli Griffen

Cleveland Foundation Centennial Lake Link Trail

The Cleveland Foundation Centennial Lake Link Trail is a 0.8-mile multiuse rail-trail that will connect the Ohio & Erie Canal Towpath Trail to the shores of Lake Erie (Table 2). The entirety of the "Lake Link Trail" was built along the former Cleveland and Mahoning Valley Railroad. In August 2014, a $5 million grant from the Cleveland Foundation, as a legacy gift in honor of its 100th anniversary, propelled the trail project forward. In recognition of this significant contribution, the trail, originally known as the Lake Link Trail, was renamed. The trail makes a critical connection to the Ohio & Erie Canal Towpath Trail in Scranton Flats, connecting Lake Erie in Cleveland to the rest of Ohio.

Table 2 – Cleveland Foundation Centennial Lake Link Trail Profile

Total Length (in Miles)	**0.8**
Total Length Along the C2P Corridor (in Miles)	0.8
Trail Type	Rail-trail
Surface Type	Asphalt
Trail Manager	Cleveland Metroparks

Existing Condition

The Cleveland Foundation Centennial Lake Link Trail is owned in fee or through easements and managed by Cleveland Metroparks. The trail is currently open in two segments:

Segment 1: The 0.4-mile northern segment of the Cleveland Foundation Centennial Lake Link Trail opened in June 2017. The northern segment begins near the intersection of River Road and Mulberry Avenue. The trail weaves through Cleveland's West Bank of the Flats neighborhood, featuring exposed original railroad retaining walls and LED lighting to direct trail users.

Segment 2: The 0.4-mile southern segment of the Cleveland Foundation Centennial Lake Link Trail opened in August 2015. The southern segment begins on the banks of the Cuyahoga River at Columbus Road. There is parking available nearby at Merwin's Wharf. The trail curves southeast and continues on two new bridges over railroad tracks to meet with the Ohio & Erie Canal Towpath Trail in Scranton Flats.

There are two small gaps in the Cleveland Foundation Centennial Lake Link Trail. Plans to complete both gaps are discussed in Trail Gaps 1 and 2.

Trail Improvement Recommendations

Construction on the two existing trail segments was completed recently, in 2015 and 2017, so there are no immediate trail improvement recommendations.

Opinion of Probable Costs

As construction on the trail segments was completed recently, there is not an immediate need for resurfacing or trail upgrades.

Trail Gaps 1 and 2 – Cleveland Foundation Centennial Lake Link Trail (Whiskey Island to Irishtown Bend)

There are two gaps in the Cleveland Foundation Centennial Lake Link Trail:

Trail Gap 1: A 0.2-mile gap in the Cleveland Foundation Centennial Lake Link Trail begins on Whiskey Island in Wendy Park. A pedestrian bridge, Wendy Park Bridge, is planned for construction and will cross over adjacent railroads to connect Whiskey Island to the existing trail and on to the greater Cleveland area across the existing Willow Avenue Bridge over the old Cuyahoga River channel. After the bridge, the corridor can continue south on River Road to connect to the existing Cleveland Foundation Centennial Lake Link Trail.

Trail Gap 2: A 0.5-mile gap in the Cleveland Foundation Centennial Lake Link Trail is planned to be filled along Irishtown Bend once the hillside above it is stabilized. The hillside is at risk of sliding into the Cuyahoga River due to needed bulkheading repairs and slope issues, which could cause a blockage of the Cuyahoga River. Plans are underway to transform Irishtown Bend into a 17-acre park. Feasibility studies began in 2017 with collaboration between the city of Cleveland, the Port of Cleveland, the Northeast Ohio Regional Sewer District and LAND studio.

Trail Characteristics and Recommended Alignment

Trail Gap 1: The northern segment of the trail would extend along River Road to the existing Willow Avenue Bridge, then over adjacent railroad tracks on Wendy Park Bridge to Wendy Park. In October 2019, Cleveland Metroparks commissioners approved $6 million to complete the Wendy Park Bridge. The final design for the 500-foot-long bridge is complete, with construction scheduled for completion in the spring of 2021. About 0.1 mile of trail needs to be developed on River Road, a wide road with existing sidewalk.

Trail Gap 2: Initial designs produced by LAND studio illustrate the middle segment of the Cleveland Foundation Centennial Lake Link Trail traveling through the proposed park at Irishtown Bend. There is not an exact timeline for the stabilization of the Irishtown Bend hillside. The alignment of the trail will likely be on the decommissioned roadway within Irishtown Bend. Cleveland Metroparks received a Congestion Mitigation and Air Quality (CMAQ) award for $3.34 million for trail development in Irishtown Bend. However, trail development cannot begin until the hillside is stabilized. The Cleveland–Cuyahoga County Port Authority awarded a contract in July 2019 to engage a consultant to develop plans and designs for bulkheading and stabilization of the Irishtown Bend hillside.

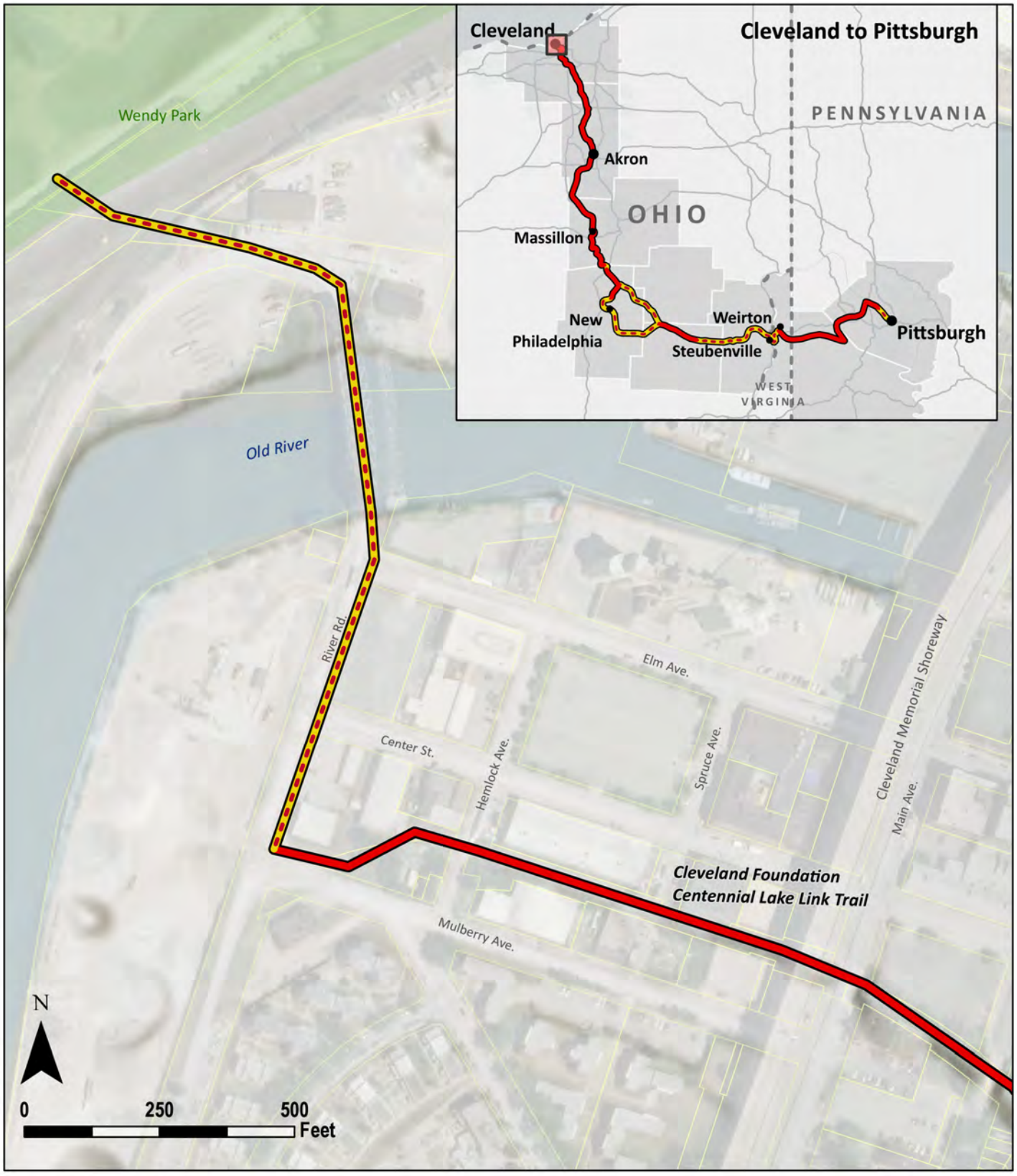
Trail Gaps 1 and 2

Miles: 0.7

Open C2P Segment
Proposed C2P Segment
Cleveland to Erie Corridor
Cleveland Parks
Regional Transit Authority Rail Line

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, NASA, NGA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geoland, FEMA, USDA, USGS, AeroGRID, IGN, Intermap and the GIS User Community

rails-to-trails conservancy



Trail Gap 1

Miles: 0.2

Open C2P Segment

Proposed C2P Segment

Cleveland Parks

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, NASA, NGA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geoland, FEMA, USDA, USGS, AeroGRID, IGN, Intermap and the GIS User Community

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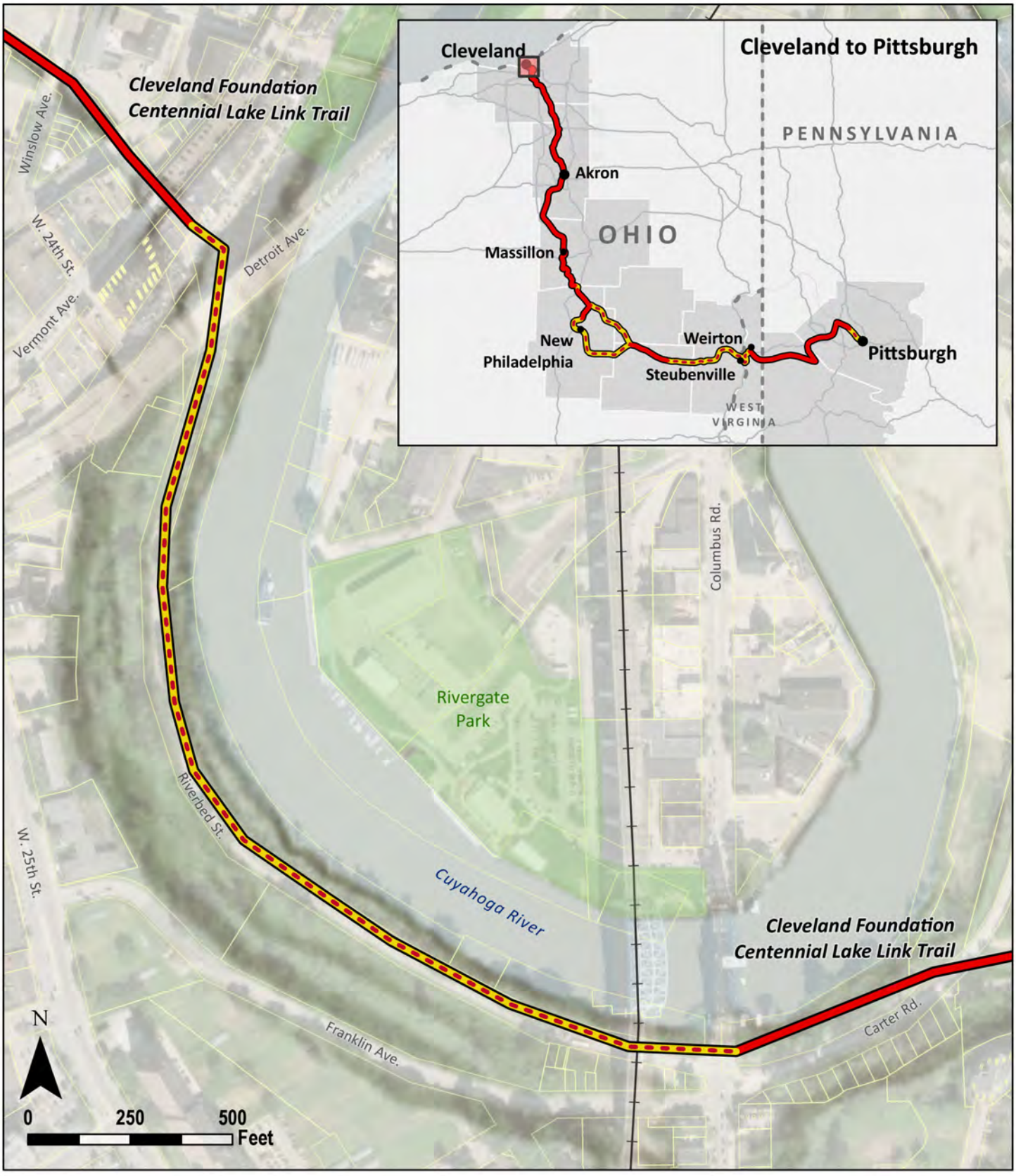

Trail Gap 2

Miles: 0.5

Open C2P Segment
Proposed C2P Segment
Cleveland Parks
RTA Rail Line

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, NASA, NGA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geoland, FEMA, USDA, USGS, AeroGRID, IGN, Intermap and the GIS User Community

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An aerial view of Irishtown Bend before hill stabilization | Photo courtesy LAND Studio

Proposed Easements and Property Acquisition

No further easements or property acquisition are required to complete Trail Gaps 1 and 2; however, there is a "floating easement" that LAND studio had received for the trail that needs to be fixed to a location. Because of the complex situation concerning Irishtown Bend and the needed hillside stabilization efforts, the exact location of the eventual trail is not able to be determined at this point; thus, the need for this floating arrangement.

Ohio & Erie Canal Towpath Trail

The Ohio & Erie Canal Towpath Trail follows a historical canal, built to provide affordable and fast transport of goods, where mules pulled boats from New Philadelphia to Lake Erie in Cleveland, Ohio, from 1827 to 1913. The entire Ohio & Erie Canal Towpath Trail is currently 101 miles traveling south from Cleveland to New Philadelphia, Ohio (Table 3).

Some segments of the Ohio & Erie Canal Towpath Trail are currently on-road. Many of these sections are being transformed to off-road trail, for example, along University Drive in Cuyahoga County. The 0.4-mile section on University Drive currently travels on-road via a low-traffic, residential street. By spring of 2021, University Drive will be closed to automobile traffic and reconfigured as an off-road trail. The conversion of on-road to off-road trails along the Ohio & Erie Canal Towpath Trail is discussed in more detail in the sections below.

Note: Please see Trail Gap 4 for a full explanation of mileage included in the C2P corridor.

Table 3 – Ohio & Erie Canal Towpath Trail Profile

Total Length (in Miles)	**101**
Total Length Along the C2P Corridor (in Miles)	101
Trail Type	Canal
Surface Type	Asphalt, Boardwalk, Crushed Stone
Trail Managers	Canalway Partners City of Akron Cleveland Metroparks Cuyahoga County Cuyahoga Valley National Park Ohio & Erie Canalway Coalition Stark Parks Summit Metro Parks Tuscarawas County Park Department

Trail users crossing a wetland in Cuyahoga Valley National Park | Photo courtesy U.S. National Park Service

Existing Condition

The Ohio & Erie Canal Towpath Trail is managed by various jurisdictions, including the county park districts in Cuyahoga, Summit, Stark and Tuscarawas counties, as well as the National Park Service via Cuyahoga Valley National Park. Canalway Partners and the Ohio & Erie Canalway Coalition are the active nonprofit organizations leading many initiatives in support of the towpath trail.

The newest section of the Ohio & Erie Canal Towpath Trail, a 0.65-mile side-path connection between Steelyard Commons and the Harvard Avenue trailhead, was constructed in the fall of 2019. There is also a 0.4-mile on-road section of the Ohio & Erie Canal Towpath Trail set to be reconfigured by the spring of 2021. The current on-road section on University Drive is a low-traffic, residential street that will be closed to automobile traffic and reconfigured as an off-road trail.

Trail Improvement Recommendations

The trail surface of the Ohio & Erie Canal Towpath Trail is a mixture of crushed limestone, asphalt and boardwalk and features signage in Cuyahoga, Summit and Stark counties. The trail is resurfaced in segments based on need and jurisdictional management. The trail has not been entirely resurfaced since its original construction; as such, ongoing resurfacing needs are anticipated to continue. The trail is under development in Tuscarawas County, with signage yet to be installed. As the trail develops throughout the county, signage should be included to ensure safety and usability.

Opinion of Probable Costs

The Ohio & Erie Canal Towpath Trail is spot-treated and receives maintenance and upgrades as needed. If the entirety of the trail were to be resurfaced, a full cost estimate would be needed. Through a four-party agreement between the city of Cleveland, Cuyahoga County, Cleveland Metroparks and Canalway Partners, the remaining portions of the Ohio & Erie Canal Towpath Trail in Cuyahoga County are all designed, funded and under construction, with anticipated completion by early 2021.

Trail Gap 3 – Ohio & Erie Canal Towpath Trail (Bolivar, Ohio)

The 2-mile gap through the Ohio village of Bolivar is anticipated to be completed in 2020 through the efforts of the Ohio & Erie Canalway Coalition. Federal Transportation Alternatives Program (TAP) funding was awarded in September 2019, with construction expected in 2020. The section will connect the Bolivar Aqueduct McDonnell Towpath Trailhead to the village of Bolivar and the trail heading south from Fort Laurens on the south side of Bolivar.

Trail Characteristics and Recommended Alignment

The Ohio & Erie Canal Towpath Trail currently ends after crossing the Tuscarawas River at the Bolivar Aqueduct McDonnell Towpath Trailhead. The corridor would travel under the active Wheeling & Lake Erie Railway tracks via multiuse trail and into Bolivar on low-volume residential roads using signage until reaching Fort Laurens State Memorial. Because the corridor would travel along low-volume roads, only 0.25 mile of trail would need to be developed. The Ohio & Erie Canalway Coalition received a $380,625 Clean Ohio Trails Fund grant to support the development of a quarter-mile off-road section of this trail gap, and construction is underway.

Trail and Trailhead Facilities

A formal trailhead exists after users cross the Tuscarawas River: the Bolivar Aqueduct McDonnell Towpath Trailhead. The trailhead includes parking, a boat launch and opportunities for fishing. Fort Laurens State Memorial, at the northern terminus of the Zoar Valley Trail, acts as another trailhead. The memorial offers restrooms, water, a pavilion and a small museum. Parking is available on a patch of grass adjacent to the road just before the Zoar Valley Trail.

Proposed Easements and Property Acquisition

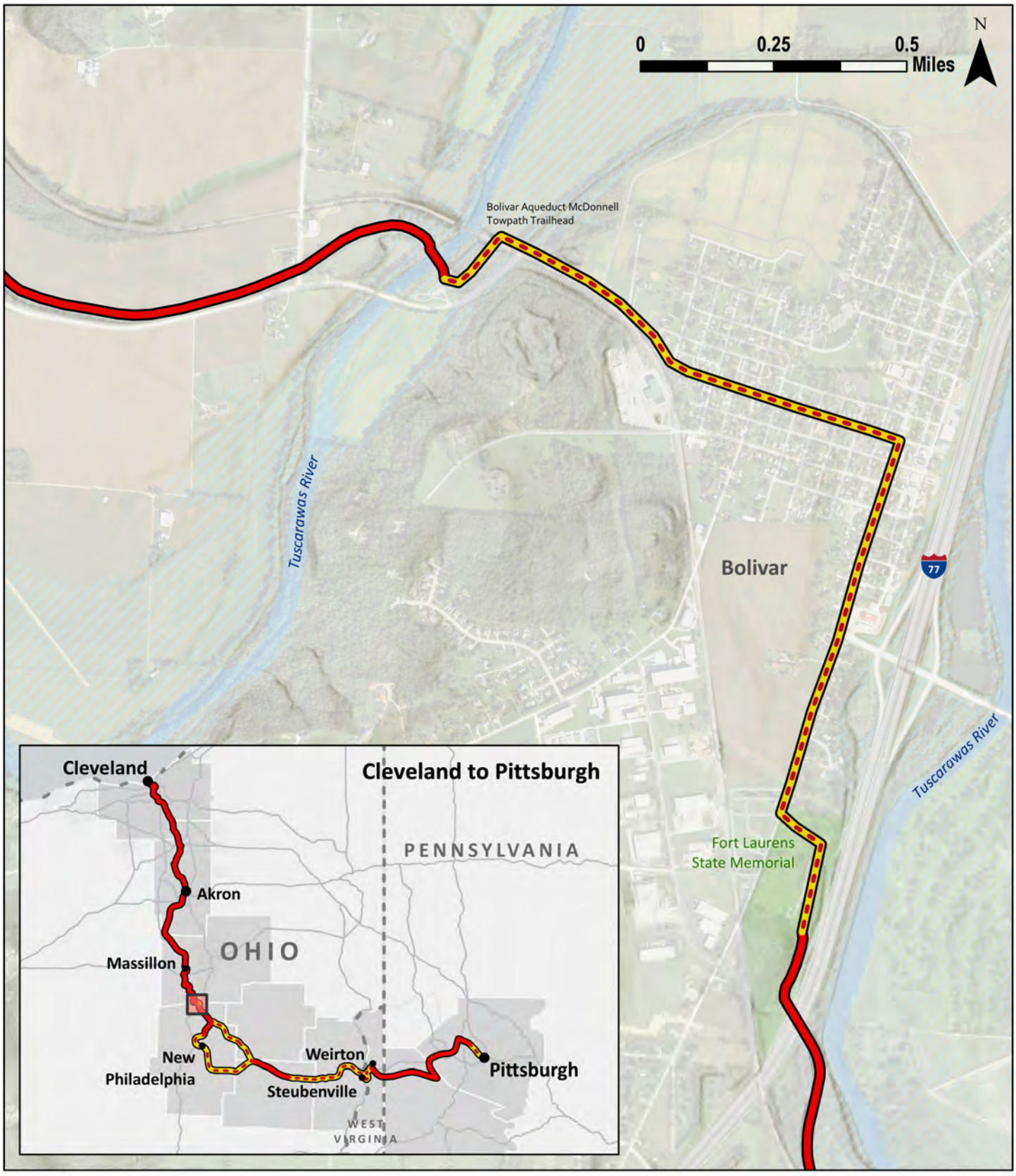
No further easements or property acquisition are required.

Opinion of Probable Costs

Because the corridor will travel on low-volume residential roads, signage and "sharrows" (i.e., shared-lane markings) are recommended to ensure user safety. All prices shown in Table 4 are estimates. Estimates may vary in range based on type of enhancement used (e.g., traditional post signage vs. overhead signage).

Table 4 – Probable Upgrade Costs for Bolivar Gap Along the C2P Corridor

Description	Low Estimate	High Estimate
Sharrows (6)	$1,800	$2,250
Signage (3)	$450	$6,000
TOTAL	**$2,250**	**$8,250**



Trail Gap 3

Miles: 2.0

Open C2P Segment

Proposed C2P Segment

Bolivar Parks

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

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Trail Gap 4 – Ohio & Erie Canal Towpath Trail (Zoar to Bowerston, Ohio)

There are two potential routing options to link Zoar to Bowerston, Ohio:

- **Option 4a**: Would connect Zoar to Bowerston via a 30.1-mile corridor heading through New Philadelphia, Tuscarawas, Uhrichsville and Dennison before reconnecting to the Conotton Creek Trail.

  Note: If Option 4a is chosen, the entirety of the Ohio & Erie Canal Towpath Trail will be included in the C2P corridor.

- **Option 4b**: Would connect Zoar to Bowerston via a 17.4-mile linear corridor.

Trail Characteristics and Recommended Alignment

Option 4a: This option would form a 30.1-mile corridor linking New Philadelphia, Tuscarawas, Uhrichsville and Dennison before reconnecting to the Conotton Creek Trail. Beginning in Zoar, the C2P corridor would include the remaining portion of the Zoar Valley Trail until its current southern terminus at State Route 416 near the city of Dover. The corridor would then travel along the banks of the Tuscarawas River from Dover to the city of New Philadelphia, Ohio. Once in New Philadelphia, the corridor would head north on South Broadway Street.

The corridor would then follow East High Avenue to Schoenbrunn Village and continue south until the village of Tuscarawas. The corridor would travel through the village center before heading east to eventually cross the Tuscarawas River. Traveling to Uhrichsville, the corridor would follow along the Columbus & Ohio River Railroad line and travel across the Tuscarawas–Harrison county line. Continuing along the Columbus & Ohio River Railroad, the corridor would follow Patterson Road 5.15 miles to Bowerston, where it would connect to the Conotton Creek Trail.

Option 4b: With this option, a 17.4-mile corridor would follow an active Wheeling & Lake Erie Railway corridor from Zoar through Somerdale and Sherrodsville before reaching the Conotton Creek Trail in Bowerston. The Tuscarawas County Trail and Green Space Master Plan illustrates a plan to complete this gap as part of a countywide network of trails, but does not discuss exact routing or project timeline plans.

Trail and Trailhead Facilities

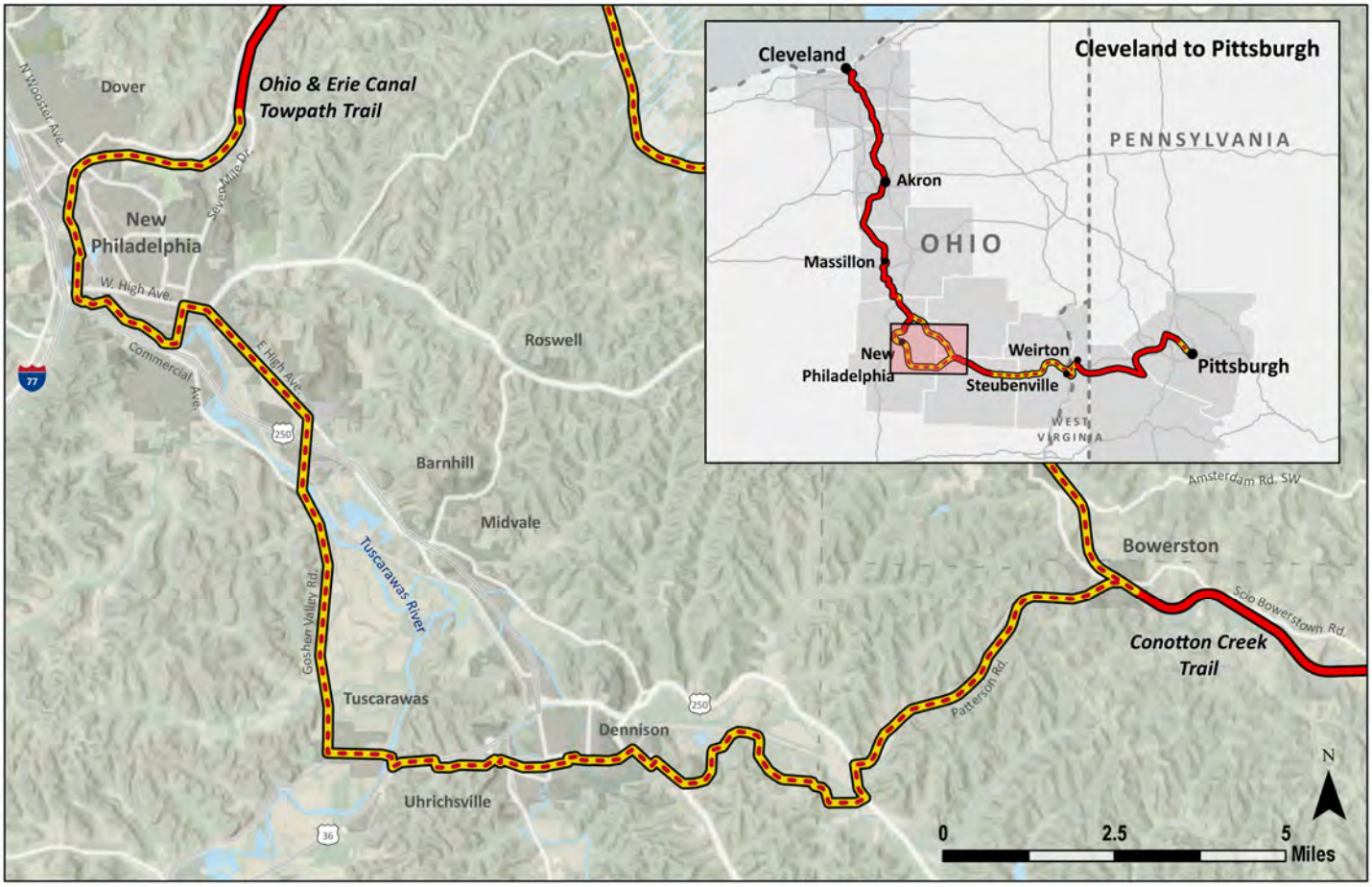
There are no formal trailheads along either proposed corridor. Trailheads located in the cities and towns along the proposed corridors, such as New Philadelphia or Uhrichsville, could increase user experience while also generating opportunity for economic development. Trailheads featuring a "town directory" could direct trail users to towns and local businesses.

Proposed Easements and Property Acquisition

The Muskingum Watershed Conservancy District owns significant land between Harrison, Carroll and Tuscarawas counties and is a willing and eager partner regarding trail development in the area. If Option 4b is selected, easement negotiations with the Wheeling & Lake Erie Railway would need to be pursued.

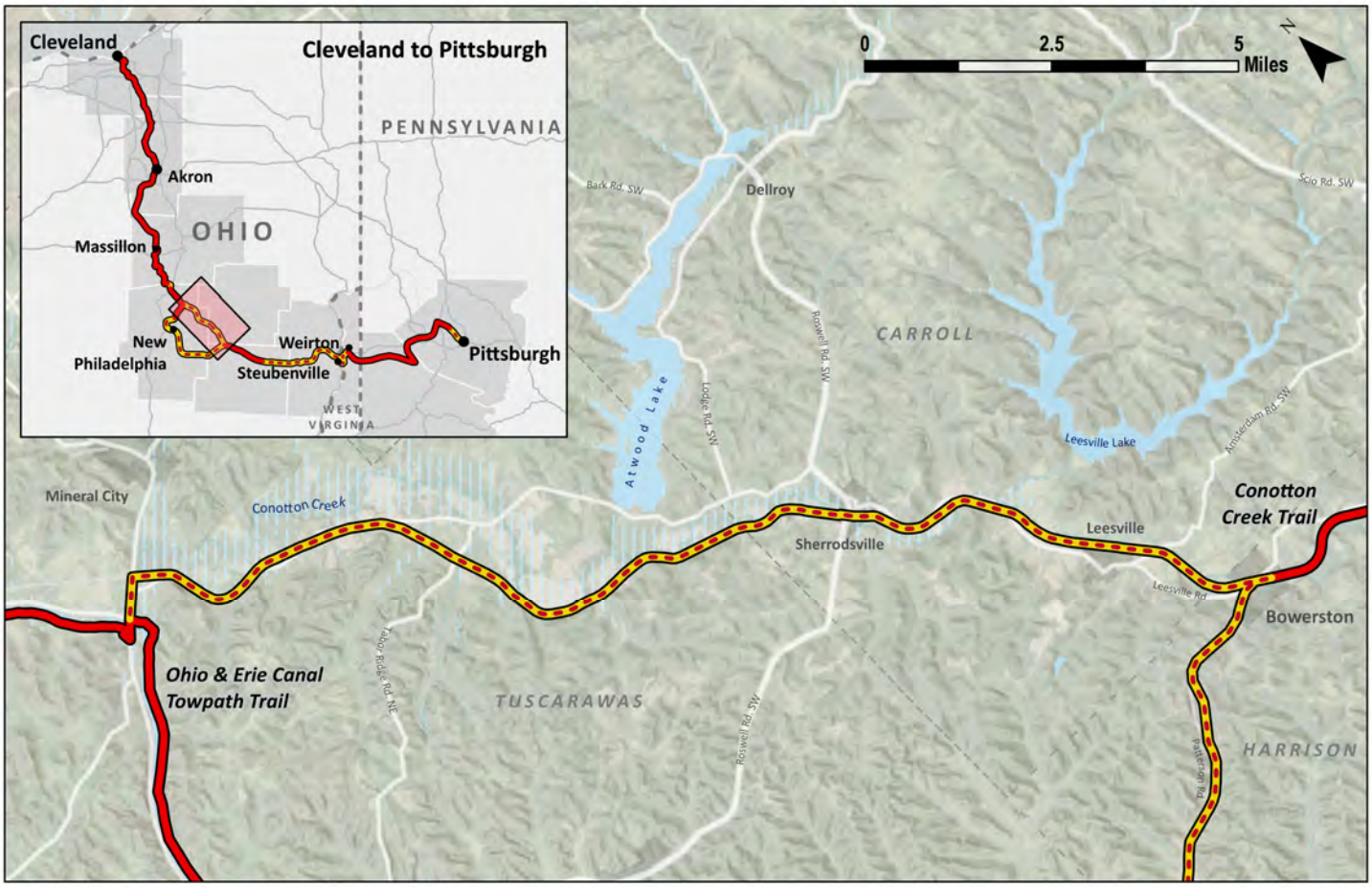
Opinion of Probable Costs

To complete the new trail segment and recommended trailhead upgrades, probable costs are estimated in Tables 5, 6 and 7. These do not include design or engineering work. An opinion of probable costs is broken down per element in these tables.



Option 4a

Miles: 30.1



Option 4b

Miles: 17.4

Opinion of Probable Trail Construction Costs: Completing the trail gap via either Option 4a or Option 4b from Zoar to Bowerston, Ohio, could be accomplished with either of the surfaces priced in Tables 5 and 6.

Table 5 – Probable Trail Construction Costs for Option 4a From Zoar to Bowerston Along the C2P Corridor

Option 1	Length (in Miles)	Low Estimate	High Estimate
Asphalt	30.1	$14,339,937	$17,689,305
Option 2	**Length (in Miles)**	**Low Estimate**	**High Estimate**
Crushed Stone	30.1	$2,536,467	$5,134,597

Table 6 – Probable Trail Construction Costs for Option 4b From Zoar to Bowerston Along the C2P Corridor

Option 1	Length (in Miles)	Low Estimate	High Estimate
Asphalt	17.4	$8,289,552	$10,225,711
Option 2	**Length (in Miles)**	**Low Estimate**	**High Estimate**
Crushed Stone	17.4	$1,466,263	$2,968,172

Opinion of Probable Trailhead Costs: A formal trailhead should be constructed at the western terminus of the new trail segment near the intersection of State Road 800 Northeast and Canal Road Northeast in Dover, Ohio. Directional totems should be placed near the trail so that users know which route to take. All prices shown in Table 7 are estimates. Estimates may vary in range based on type of enhancement used (e.g., a basic trailhead, vs. a trailhead with amenities including a parking lot, restrooms and water—or traditional directional totems, vs. overhead directional totems or directional totems with lighting).

Table 7 – Probable Trailhead Costs for Trail Gap 4 From Zoar to Bowerston Along the C2P Corridor

Description	Low Estimate	High Estimate
Trailhead (1)	$5,000	$345,000
Directional Totems (7)	$17,500	$35,000
TOTAL	**$22,500**	**$380,000**

Railroad history is highlighted throughout the Conotton Creek Trail. | Photo by Flickr user Poker2662, CC by 2.0

Conotton Creek Trail

The Conotton Creek Trail features 11.5 miles of rail-trail traveling from Bowerston to Jewett, Ohio (Table 8). Once the corridor of the Wheeling & Lake Erie Railway, the trail now travels across Ohio's countryside and features five covered bridge crossings over Conotton Creek. The rail line was once used to transport iron ore from Great Lakes ports to the steel mills of the Ohio River Valley, and to haul coal from Harrison County to markets in all directions.

Table 8 – Conotton Creek Trail Profile

Total Length (in Miles)	11.5
Total Length Along the C2P Corridor (in Miles)	11.5
Trail Type	Rail-trail
Surface Type	Asphalt
Trail Managers	Friends of the Conotton Creek Trail, Harrison County

Existing Condition

The Conotton Creek Trail features multiple trailside amenities, including benches and rain shelters. Friends of the Conotton Creek Trail works to maintain covered bridges along the trail.

Trail Improvement Recommendations

There have been conversations around resurfacing the 11.5 miles of trail during the summer of 2020 to make the trail more accessible for the many seniors who are part of the surrounding community. The Friends of the Conotton Creek Trail group is looking into funding opportunities for resurfacing.

Opinion of Probable Costs

The Conotton Creek Trail should be resurfaced as needed to keep both a quality trail experience and to make routine maintenance more manageable. To complete the recommended trail upgrades, probable costs are estimated between $1,629,676 and $2,314,892. These resurfacing costs are broken down in Table 9.

Table 9 – Probable Resurfacing Costs for the Conotton Creek Trail Along the C2P Corridor

Type of Trail	Length (in Miles)	Low Estimate	High Estimate
Asphalt	11.5	$1,629,676	$2,314,892

Trail Gap 5 – Jewett to Ohio–West Virginia State Line

This 28.4-mile section of potential future trail between Jewett and Steubenville, Ohio, would travel across rural Ohio, following creeks and passing through forests. Exciting projects like the planned Hellbender Preserve Trail will help build momentum in developing this corridor. This section of trail would end in Steubenville, Ohio, which lies on the west side of the Ohio River, across the Market Street Bridge from Weirton, West Virginia.

Trail Characteristics and Recommended Alignment

Segment 1 (Jewett to Alikanna, Ohio): The proposed corridor would begin at the eastern terminus of the Conotton Creek Trail and could parallel a rail corridor owned by the Columbus & Ohio River Railroad Company to pass through Cadiz Junction, Unionport and Broadacre. Between Unionport and Broadacre, at Carman Road/Township Road 201, the proposed corridor crosses the Harrison–Jefferson county border.

The Jefferson County Soil and Water Conservation District has plans to develop a trail through the planned Hellbender Preserve near Broadacre. This planned 2.6-mile trail would bring attention to the hellbender salamander, an endangered species native to Ohio and the eastern United States. The greatest population of hellbenders in the country is found here in Jefferson County, Ohio.

The planned Hellbender Preserve Trail would follow an abandoned rail line through lands to be included in the Hellbender Preserve, featuring several beautiful bridges and tunnels with a rich history. The trail would educate the public on conservation efforts underway to save the eastern hellbender, as well as highlight the natural resources and history of the area.

From Broadacre, the proposed corridor would follow Cedar Lick Run northeast until Kragel Road. The proposed alignment would cross Reeds Mill Road and State Route 43 to parallel North Fork Wills Creek and 7 Creeks Road. The proposed alignment could then follow North Fork Wills Creek and Wills Creek southeast toward Alikanna.

Segment 2 (Alikanna to Steubenville, Ohio): At Alikanna, a trail would need to cross US 22, where there is potential for an at-grade crossing or an underground crossing that could make use of an old bridge. After the crossing, there is an opportunity to build a trail alongside the Ohio River, connecting Alikanna 2.5 miles south to Steubenville, Ohio.

Once in Steubenville, there are no formal plans to complete a trail through town and across the Ohio River into West Virginia. Rails-to-Trails Conservancy (RTC) has met with the Jefferson County Soil and Water Conservation District as well as Brooke Hancock Jefferson Metropolitan Planning Commission to develop a proposed trail alignment through Steubenville and Jefferson County, Ohio. A trail could cross over the Ohio River from Steubenville, Ohio, to Weirton, West Virginia, via the Market Street Bridge.

Trail and Trailhead Facilities

There is a formal trailhead at the eastern terminus of the Conotton Creek Trail at the intersection of Water and Cadiz streets in Jewett. The trailhead features a covered bridge and small picnic area. There are no other trailheads along the potential corridor. Adding trailheads at historic station stops of the Pittsburgh, Cincinnati, Chicago & St. Louis Railroad (also known as the Panhandle Route), including Broadacre, Fairplay and Millers' Crossing—in addition to the small villages of Unionport and Cadiz Junction—could increase user experience while also generating opportunities for economic development. Trailheads featuring a town directory could direct trail users to towns and local businesses.

Proposed Easements and Property Acquisition

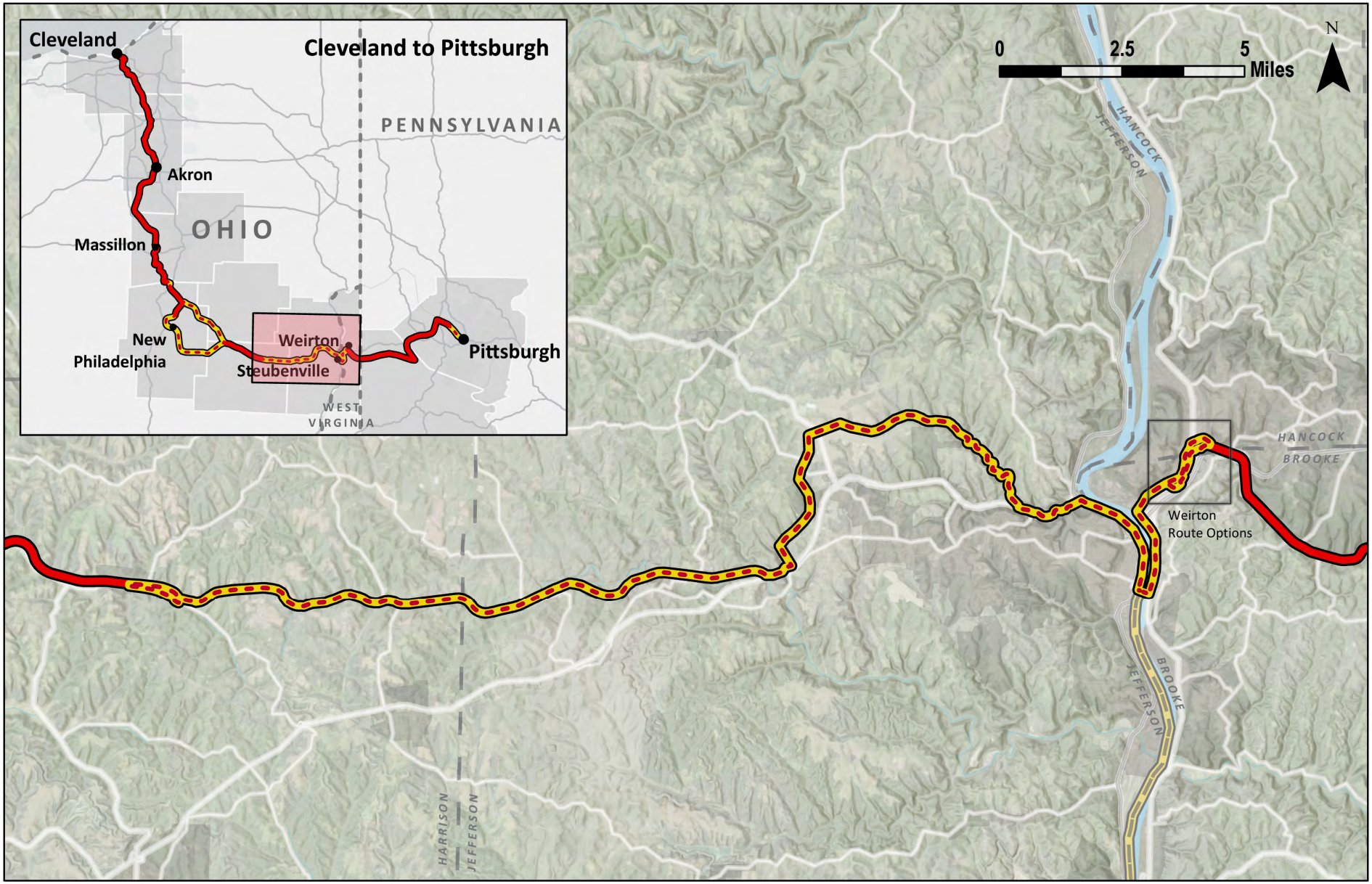
The Jefferson County Soil and Water Conservation District is in the process of acquiring the land to be used for the Hellbender Preserve and its respective trail. Further information is required to determine the potential easement and property acquisition needs of the remainder of Trail Gap 5.

Opinion of Probable Costs

To complete the new trail segment, an opinion of probable costs is broken down in Table 10. The Jefferson County Soil and Water Conservation District helped inform this estimate by providing its own cost estimates generated when applying for a Clean Ohio Fund grant. Completing the trail gaps from Jewett to the Ohio–West Virginia state line could be accomplished with the surface priced below.

Table 10 – Probable Trail Construction Costs for Jewett to Ohio–West Virginia State Line Along the C2P Corridor

Type of Trail	Length (in Miles)	Low Estimate	High Estimate
Crushed Stone	28.4	$2,393,211	$4,844,603



Trail Gaps 5 and 6

Gap 5 Miles: 28.4

Gap 6 Miles: 4.2

Open C2P Segment

Proposed C2P Segment

P2P Corridor Connection

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, NASA, NGA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geoland, FEMA, USDA, USGS, AeroGRID, IGN, Intermap and the GIS User Community

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Trail Gap 6 – Ohio–West Virginia State Line to Weirton, West Virginia

There is a 4.2-mile gap from the Ohio–West Virginia state line to the western terminus of the Panhandle Trail in Weirton, West Virginia. RTC is partnering with the Northern West Virginia Brownfields Assistance Center (NBAC) and the city of Weirton to identify a corridor to connect the Ohio–West Virginia state line to the end of the Panhandle Trail in Weirton, via the Market Street Bridge. NBAC, along with local planners and advocates, has found multiple routing options to establish a connection from the Market Street Bridge through Weirton, one via trail and one via on-street bicycle facilities. NBAC and the city of Weirton submitted a TAP grant to fund on-street bicycle facilities in Weirton that could help close this gap.

Trail Characteristics and Recommended Alignment

From Steubenville, Ohio, the proposed corridor could travel across the Ohio River to Weirton, West Virginia, via the Market Street Bridge, an open-decked bridge currently open for vehicular traffic. The Market Street Bridge is aging into obsolescence, and a new highway bridge across the Ohio River is planned for construction near Wellsburg, West Virginia, which may open an opportunity. There is not a current plan to decommission the Market Street Bridge, although that could change based on regular inspections of the span.

If the Market Street Bridge is decommissioned, it is possible that the bridge would require only minor upgrades to handle bicycle and pedestrian traffic, pending a full engineering study of the bridge's structural soundness. Because the potential trail along the Ohio River would be well below the surface of the Market Street Bridge, a structure would need to be built to bring trail users down from the bridge to the riverbank while also clearing the active Norfolk Southern rail line that runs along the Ohio River.

The trail could then head north to parallel the Ohio River until reaching Weirton. This segment is a proposed extension of the Brooke Pioneer Trail, a spur that will connect to the corridor from the south.

Once in Weirton, the proposed corridor would head northeast along Freedom Way. From the intersection of Freedom Way and State Route 2/Main Street, the proposed route would cross State Route 2/Main Street with a proposed crosswalk. From this location, two options are proposed that could form a loop in Weirton.

Option A: The On-Road Corridor would continue along Freedom Way until merging with Main Street in Weirton via a two-way bike path occupying the westernmost lane of traffic through the city. Traffic would be reconfigured, eliminating the middle turning lane along the impacted roadway. This proposed corridor would turn right at Walnut Street to meet the proposed Off-Road Corridor.

Option B: The Off-Road Corridor would parallel Military Drive past the Brooke–Hancock County Veterans Memorial Park Revolutionary War Memorial and across an existing parking lot to the north. This route would utilize an abandoned railroad bridge and parallel Harmon Creek to the west for three-quarters of a mile, where it would meet the proposed On-Road Corridor. Survey work is necessary to determine who owns the property along Harmon Creek, although it is suspected that adjacent local businesses own the land.

From the northern convergence of the proposed On-Road and Off-Road options, the proposed corridor would cross Harmon Creek via a second existing railroad bridge and extend east to intersect a former Norfolk Southern rail yard and meet the existing Panhandle Trail at McKims Ridge Road.

Frontier Group of Companies LLC in Buffalo, New York, recently purchased some of the impacted property and has plans to redevelop it. NBAC has been sharing connectivity options with Frontier and attempting to coordinate the proposed corridors with the company's ongoing planning efforts. Site plans can be found below.

Trail and Trailhead Facilities

There are currently no formal trailheads along the proposed corridor. A trailhead park is proposed on a linear parcel along Main Street in Weirton, West Virginia. The parcel is located inside the southernmost point of the loop, which will be created by the On-Road and Off-Road corridors and will be bordered on three sides by the proposed trails. The city of Weirton has been negotiating the transfer of a linear parcel with the intention of developing a trailhead park.

Proposed Easements and Property Acquisition

There would need to be easements acquired for the Off-Road Corridor. These may include local business owners and potentially a large developer. Further information is required to identify specific landowners with whom to discuss easement. NBAC and the city of Weirton will also need to review potential easements along the Ohio River.

Opinion of Probable Costs

To complete the new trail segment, probable costs are estimated between $353,926 and $2,468,275. This does not include design or engineering work, retrofitting of the Market Street Bridge, or the cost of the structure needed to take users from the Market Street Bridge to the bank of the Ohio River. Using similar projects as examples, the cost to retrofit the Market Street Bridge could be between $4 million and $11 million, with the additional structure coming in between $2 million and $6 million. Completing the trail gaps from the Ohio–West Virginia state line to Weirton, West Virginia, could be accomplished with either of the surface options priced in Table 11.

Trail Gap 6 Detail - Weirton

Miles: 1.5

Open C2P Segment

Proposed C2P Segment

Railroad

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, NASA, NGA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geoland, FEMA, USDA, USGS, AeroGRID, IGN, Intermap and the GIS User Community

rails·to·trails conservancy

View from the Market Street Bridge, where a structure is required to bring users to the riverfront | Photo courtesy Anna Withrow

Table 11 – Probable Trail Construction Costs for Ohio–West Virginia State Line to Weirton, West Virginia, Along the C2P Corridor

Option 1	Length (in Miles)	Low Estimate	High Estimate
Asphalt	4.2	$2,000,926	$2,468,275

Option 2	Length (in Miles)	Low Estimate	High Estimate
Crushed Stone	4.2	$353,926	$716,455

Panhandle Trail

The Panhandle Trail was transformed from a Conrail line known as the Panhandle Railroad into a multiuse trail stretching 29 miles. The C2P corridor will incorporate 20.5 miles of the Panhandle Trail, traveling from Weirton, West Virginia, to Robinson Township, Pennsylvania (Table 12). The Panhandle Trail begins south of Weirton and parallels US 22 before heading east to cross the West Virginia–Pennsylvania border. After crossing into Pennsylvania, the trail travels east 15.4 miles before reaching the Montour Trail in Robinson Township.

Table 12 – Panhandle Trail Profile

Total Length (in Miles)	**29**
Total Length Along the C2P Corridor (in Miles)	20.5 (15.9 in Pa.; 4.6 in W.Va.)
Trail Type	Rail-trail
Surface Type	Asphalt, Crushed Stone
Trail Managers	Collier Friends of the Panhandle Trail, Montour Trail Council, Washington County (Pa.) Department of Parks & Recreation

Existing Condition

The Panhandle Trail was the 100th successful rail-trail project in Pennsylvania and is recognized as a valuable resource in both Pennsylvania and West Virginia. Alternating between a trail surface of asphalt and crushed stone, the trail is maintained by multiple groups including Collier Friends of the Panhandle Trail, Montour Trail Council and Washington County, Pennsylvania's Department of Parks & Recreation.

Trail Improvement Recommendations

Aside from isolated improvements as needed, asphalt trails should be resurfaced approximately every 10 years and natural surface trails every 20 years. In January 2019, Collier Friends of the Panhandle Trail announced plans to resurface a 4-mile section of the trail in Collier Township, Pennsylvania. As funding for resurfacing is difficult to obtain, creative and sustainable ways to fund resurfacing and other maintenance costs should be identified.

Opinion of Probable Costs

To complete the recommended trail and trailhead upgrades, probable costs are estimated between $174,906 and $4,126,547. Costs are broken down per element in Table 13.

Opinion of Probable Resurfacing Costs: The Panhandle Trail should be resurfaced as needed to keep both a quality trail experience and to make routine maintenance more manageable.

Table 13 – Probable Resurfacing Costs for the Panhandle Trail Along the C2P Corridor

Option 1	**Length (in Miles)**	**Low Estimate**	**High Estimate**
Asphalt	20.5	$2,905,075	$4,126,547
Option 2	**Length (in Miles)**	**Low Estimate**	**High Estimate**
Crushed Stone	20.5	$174,906	$1,708,326

The Panhandle Trail connects West Virginia and Pennsylvania. | Photo courtesy McDonald Trail Station

Opinion of Probable Trailhead Costs: A formal trailhead should be constructed at the western terminus of the Panhandle Trail in Weirton, West Virginia. The large range of probable costs represents a basic trailhead on the low end of the cost spectrum, versus a trailhead with numerous amenities including a parking lot, restrooms and water (Table 14).

Table 14 – Probable Trailhead Costs for the Panhandle Trail Along the C2P Corridor

Description	Low Estimate	High Estimate
Trailhead (1)	$5,000	$345,000
Directional Totems (4)	$10,000	$20,000
Signage (1)	$150	$2,000
TOTAL	**$15,150**	**$367,000**

Montour Trail

The Montour Trail is a multiuse rail-trail that travels around the greater Pittsburgh, Pennsylvania, area. The C2P corridor will include 17.5 miles of the Montour Trail before reaching Coraopolis, Pennsylvania (Table 15). The Montour Trail follows a portion of the old Montour Railroad, which was built between 1877 and 1914 to link the Pittsburgh and Lake Erie Railroad to the region's many coal mines. Both the trail and the railroad are named for the creek that runs alongside them. Beginning in Coraopolis, the trail travels south through forested areas and small towns like Beechcliff, Imperial and McDonald to meet the Panhandle Trail in Robinson Township.

Table 15 – Montour Trail Profile

Total Length (in Miles)	**61.5**
Total Length Along the C2P Corridor (in Miles)	17.5
Trail Type	Rail-trail
Surface Type	Asphalt, Crushed Stone
Trail Managers	Montour Trail Council, Peters Township Parks & Recreation

Existing Condition

The Montour Trail is managed by the Montour Trail Council and Peters Township Parks & Recreation. The trail is surfaced with asphalt and crushed limestone. From Coraopolis to McDonald, Pennsylvania, there are three existing trailheads with amenities for trail users. A 0.8-mile extension is currently under construction by volunteers with the Montour Trail Council and will likely be complete in 2020.

Trail Improvement Recommendations

The Montour Trail Council is a volunteer organization that regularly sees to the maintenance of the trail. The Montour Trail Council hosts "work parties" where volunteers help to maintain the trail, including surface patching. Aside from surface patching as needed, asphalt trails should be resurfaced approximately every 10 years and natural surface trails every 20. Creative and sustainable ways to fund resurfacing and other maintenance costs should be identified.

Opinion of Probable Costs

The Montour Trail is spot-treated and receives maintenance and upgrades as needed. If the entirety of the trail were to be resurfaced, a full cost estimate would be needed.

Brooke Hancock Jefferson Metropolitan Planning Commission Trails and Greenways Implementation Guidelines

The Brooke Hancock Jefferson Metropolitan Planning Commission created a Quick Reference Guide as a best practice for implementing on-road and off-road bicycle/pedestrian facilities. The manual can be found at the link below:

bhjmpc.org/wp-content/uploads/2017/10/Quick-Reference-Guide-20170104.pdf

Montour Trail in Pennsylvania | Photo by Milo Bateman

Trail Gap 7 – Coraopolis to Pittsburgh, Pennsylvania

Between the western end of the Three Rivers Heritage Trail and the eastern end of the Montour Trail is a 6.2-mile gap. The Friends of the Riverfront, the Pennsylvania Environmental Council and Allegheny County, Pennsylvania, have studied this trail gap in depth over the last two decades.

In June 2013, the Friends of the Riverfront, the Pennsylvania Environmental Council and Allegheny County published the Three Rivers Heritage Trail Pittsburgh to Coraopolis Feasibility Study,[26] which provided recommendations to complete this trail gap as part of the Three Rivers Heritage Trail system. The feasibility study helped inform the recommended trail alignment shown on the Trail Gap 7 map. Filling this gap would connect 37 miles of trail along the C2P corridor and connect more than 98 miles of trail throughout Pennsylvania.

Trail Characteristics and Recommended Alignment

The Friends of the Riverfront, the Pennsylvania Environmental Council and Allegheny County, along with their partner organizations, have explored various options to connect the Three Rivers Heritage Trail to the Montour Trail between Coraopolis and Pittsburgh, Pennsylvania.

Trail and Trailhead Facilities

There are currently no formal trailheads along this proposed corridor.

Proposed Easements and Property Acquisition

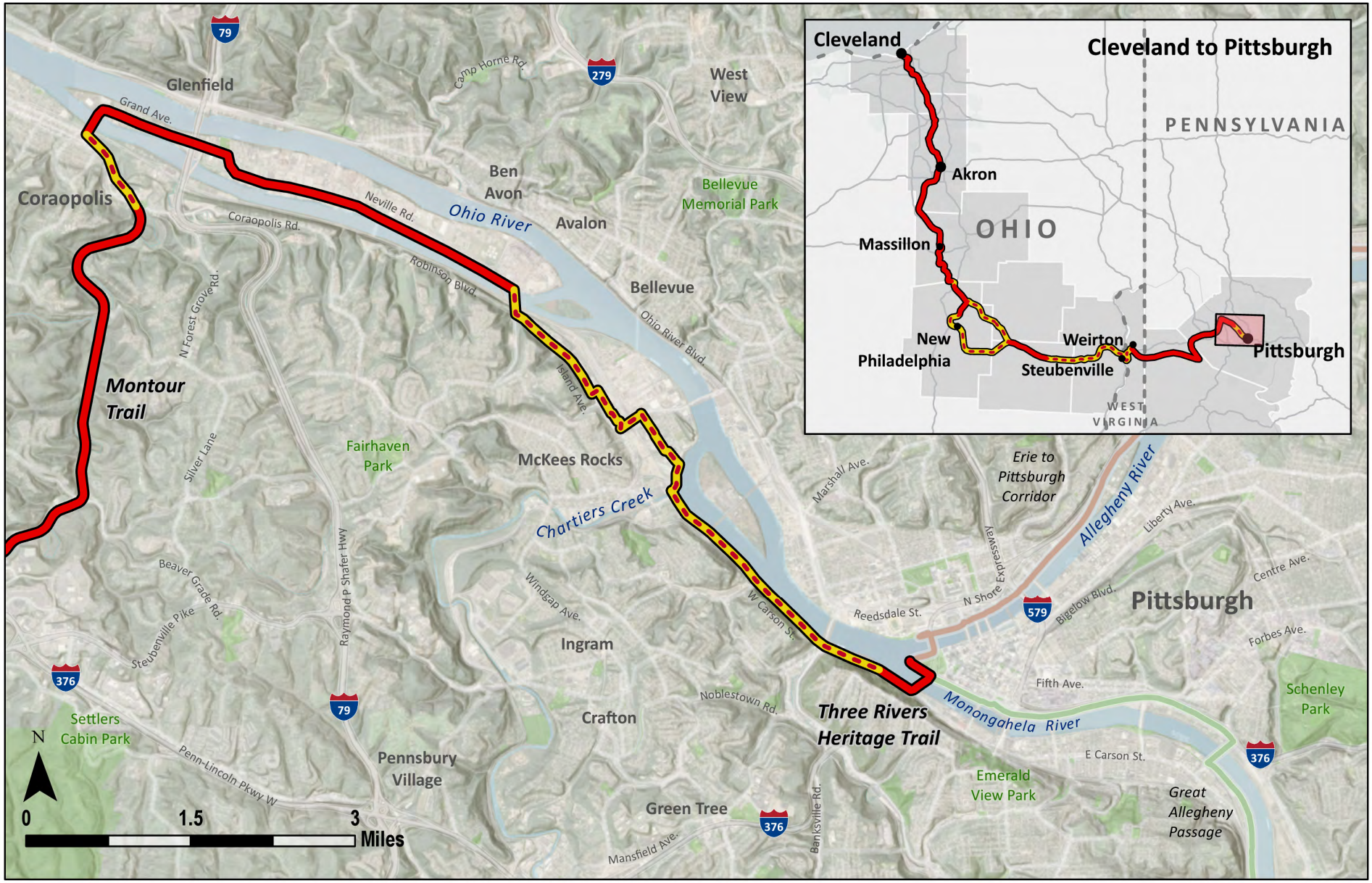
Further easements are required alongside the Ohio River, where there is a CSX line on the southern shore.

Opinion of Probable Costs

To complete the new trail segment, probable costs are estimated between $3,681,068 and $6,498,068 (Table 16). The Pittsburgh to Coraopolis Feasibility Study described earlier helped inform the cost estimate. The study estimated about $94,068 for intersection improvements that are not included in the cost estimates below. Completing the trail gaps from Coraopolis to Pittsburgh, Pennsylvania, could be accomplished with the surface priced below.

Table 16 – Probable Trail Construction Costs for Coraopolis to Pittsburgh Along the C2P Corridor

Type of Trail	Length (in Miles)	Low Estimate	High Estimate
Asphalt	6.2	$3,681,068	$6,498,068



Trail Gap 7

Miles: 6.2

- Open C2P Segment
- Proposed C2P Segment
- Great Allegheny Passage
- Pittsburgh Parks
- Erie to Pittsburgh Corridor

rails-to-trails conservancy

Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, NASA, NGA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geoland, FEMA, USDA, USGS, AeroGRID, IGN, Intermap and the GIS User Community

Point State Park in Pittsburgh, Pennsylvania, serves as the eastern terminus of the C2P corridor. | Photo by Pressley Associates, courtesy Riverlife

Three Rivers Heritage Trail

The C2P corridor ends in the heart of Pittsburgh, Pennsylvania, on the Three Rivers Heritage Trail. The 25-mile Three Rivers Heritage Trail is a multiuse riverfront trail system that travels along the banks of three rivers: the Allegheny, Monongahela and Ohio. The C2P corridor incorporates 5.8 miles of the Three Rivers Heritage Trail from Neville Island to Point State Park, Pennsylvania (Table 17).

Table 17 – Three Rivers Heritage Trail Profile

Total Length (in Miles)	**25**
Total Length Along the C2P Corridor (in Miles)	5.8
Trail Type	Rail-trail
Surface Type	Asphalt
Trail Manager	Friends of the Riverfront

Existing Condition

Since its inception in 1991, Friends of the Riverfront has been a pioneering organization working to protect and restore the Pittsburgh, Pennsylvania, region's rivers and riverfronts after decades of legacy pollution. The Three Rivers Heritage Trail now encompasses more than 25 miles of urban riverfront trails along both banks of the Allegheny, Monongahela and Ohio rivers. Through broad and diverse collaborations, Friends of the Riverfront continues the work of providing environmental restoration, economic vitality and public health benefits to the Pittsburgh, Pennsylvania, region through the Three Rivers Heritage Trail.

Along the Three Rivers Heritage Trail in Pittsburgh, Pennsylvania | Photo courtesy Friends of the Riverfront

Trail Improvement Recommendations

The trail surface of the Three Rivers Heritage Trail along the C2P corridor is asphalt and was last resurfaced 15 years ago. The trail features trail rules signage and more than 60 interpretive signs along the entirety of the trail.

Opinion of Probable Costs

To complete the recommended trail upgrades, probable costs are estimated between $4,704,444 and $16,935,994. Costs are broken down in Table 18. The Three Rivers Heritage Trail should be resurfaced as needed to keep both a quality trail experience and to make routine maintenance more manageable.

Table 18 – Probable Resurfacing Costs for the Three Rivers Heritage Trail Along the C2P Corridor

Type of Trail	Length (in Miles)	Low Estimate	High Estimate
Asphalt	5.8	$4,704,444	$16,935,994

Trails Transform Local Economies

Trails attract visitors from near and far. As trail systems grow, they generate opportunities for new investment in trailside businesses, recreation outfitters and tourism-related industry. In midsize cities and rural communities, trail systems support existing businesses and bring new dollars into the community. Trails increasingly demonstrate their significance in community transformation through economic activity by trail users, including visitors and locals.

This section discusses the results of the Ohio & Erie Canal Towpath Trail: Trail User Spending Impact Study, introduces the Trail Town model as a strategy for capturing tourism dollars and growing local business, and presents case studies of two long-distance destination rail-trails that serve as comparable economic development examples for the Cleveland to Pittsburgh (C2P) corridor: the Great Allegheny Passage (**gaptrail.org**) and the Katy Trail.

Ohio & Erie Canal Towpath Trail: Trail User Spending Impact Study

Trails that are still in the visioning or project stage have much to learn from the experience of more mature trails, especially ones that share geographic and demographic characteristics and similar funding, management and operations structures. In 2017, Rails-to-Trails Conservancy (RTC) and the Ohio & Erie Canalway Coalition collaborated to highlight the impact of trail user spending along the Ohio & Erie Canal Towpath Trail. The Ohio & Erie Canal Towpath Trail: Trail User Spending Impact Study allowed its users and nearby local businesses to better understand the economic impact of the trail and begin forecasting the potential economic impact of other trails within the C2P corridor.

The Ohio & Erie Canal Towpath Trail is a 101-mile trail in Ohio that is part of a historic corridor designated as a National Heritage Area by Congress in 1996. Development of the trail is spearheaded by the Ohio & Erie Canalway Coalition and Canalway Partners, both private nonprofit organizations working to develop the Ohio & Erie Canal Towpath Trail in Cuyahoga, Summit, Stark and Tuscarawas counties. The entirety of the Ohio & Erie Canal Towpath Trail is included along the C2P corridor.

The Ohio & Erie Canal Towpath Trail: Trail User Spending Impact Study identified the trail as an important economic asset in the region and a critical link in the C2P corridor, part of the Industrial Heartland Trails Coalition's (IHTC) 1,500-miles-plus regional trail network vision. The study looked at a snapshot of use and users along the trail at a single location within Cuyahoga Valley National Park in Peninsula, Ohio.

Highlights from the study included an estimated 222,005 annual users spending:

a) $3.7 million on "hard goods" (including bikes, clothing, etc.);

b) $3 million on lodging; and

c) $159,000 on "soft goods" (including food, beverages, etc.).

Based on the Trail User Spending Impact Study, a cumulative $6.9 million was spent by trail users annually along the Ohio & Erie Canal Towpath Trail—which is just one of many segments along the C2P corridor. As such, the Ohio & Erie Canal Towpath Trail: Trail User Spending Impact Study highlights the impact and unlocked potential of direct trail user spending not only on the Ohio & Erie Canal Towpath Trail, but along the entire C2P corridor.

Trail Towns: A Community Development Model That Leverages Trails

What is a "Trail Town?" The simplest answer is that it is a community located along a trail that seeks to connect to, serve and benefit from the trail. The benefits can range from a bolstered local economy to an increase in local employment attraction and retention, community pride, and improved health and wellness.

The term was first used in the context of community development along the 150-mile Great Allegheny Passage (**gaptrail.org**), where the Trail Town Program® was developed to maximize the potential of the long-distance path. The idea was to improve physical connections between trail and town and to position businesses to accommodate trail users, with the end goal of more vibrant, economically healthy places.

This approach to community development, introduced in 2007, has since spread to other trails around the United States. Typically, a regional or trailwide entity will build its own program and designation process according to local needs and capacity. Well-known programs exist in Kentucky, as well as along the Appalachian Trail and the North Country Trail.

Some Trail Towns take a programmatic approach, including having dedicated staffing and targeted strategies such as small business development opportunities for entrepreneurs. However, a formal program is not necessary for a community to adopt "Trail Town" principles and benefit from the community development lessons of the Trail Town Program. Simply doing a Trail Town readiness assessment of a community can highlight tasks, both large and small, which can make a difference in leveraging trail visitors passing through a community.

Opposite: Ohio & Erie Canal Towpath Trail in downtown Akron, Ohio | Photo by Bruce S. Ford, courtesy Summit Metro Parks

Opportunities at Home

Trail tourism professionals warn against viewing the Trail Town approach as a stand-alone solution to the myriad challenges communities face.[27] However, making efforts to better connect communities to trails and improve business services can make a positive and lasting difference in trail communities. Whether or not a formal program is in place, locals can begin cultivating a culture that celebrates trails and positions places to better connect to them.

And while Trail Town initiatives focus on getting trail users to visit and spend money in communities, we should not lose sight of the longer-term goal: creating communities to which families and small businesses want to move. Making towns more attractive and welcoming to trail users also makes them more attractive and welcoming to potential residents and businesses.

Municipalities along the C2P corridor are ideally positioned to benefit from the trail economy. Communities like Oakdale and Burgettstown in Pennsylvania; Weirton in West Virginia; and Steubenville, Jewett, Bowerston, New Philadelphia and Bolivar in Ohio are located adjacent to the C2P corridor and have the potential to benefit from trail tourism and its respective economic development opportunities.

With existing amenities bringing in visitors, like downtown Steubenville's local restaurants and cafes or New Philadelphia's historical bed-and-breakfasts, C2P communities already understand the hospitality industry. Connecting the many trails along the C2P corridor will make it possible to both attract visitors and offer an important amenity to local residents: opportunities for physical activity and new connections to other places along the route. Whether that's walking a couple of miles pushing a stroller or doing a bike overnight, the trails along the C2P corridor hold countless possibilities.

The recently released Ohio Trails Vision,[28] the first statewide trail plan in more than 13 years, has among its recommendations the exploration of a statewide Trail Town program. Ohio communities should engage with the Ohio Department of Natural Resources to maximize the potential impact of state support for this type of program. Through the C2P Corridor Working Group, partners will have the opportunity to inform strategies for the development of this program moving forward.

Strategies for applying the Trail Town model to the C2P corridor are included in the Getting There: Recommended Actions to Complete the C2P Corridor section (page 41).

Case Studies

Great Allegheny Passage

The Great Allegheny Passage (GAP) (**gaptrail.org**) connects Pittsburgh, Pennsylvania, to Cumberland, Maryland—a distance of 150 miles. The first section of the GAP opened in 1986, with the full trail seeing completion in 2013. The GAP was created using abandoned rail corridors formerly owned and operated by the Baltimore and Ohio Railroad, Pittsburgh and Lake Erie Railroad, Union Railroad and the Western Maryland Railway. Sections were acquired over time as funding became available, segments were abandoned and railroads proved willing to participate in the process.

To maintain the trail at a common standard, the Allegheny Trail Alliance was created. In 1998, then-Gov. Tom Ridge included $1.5 million in Pennsylvania's capital budget to create the Allegheny Trail Alliance, comprising seven member trail organizations:

1. Mountain Maryland Trails
2. Somerset County Rails-to-Trails Association
3. Ohiopyle State Park
4. Regional Trail Corporation
5. Steel Valley Trail Council
6. Friends of the Riverfront
7. Montour Trail Council

Additional trails connect to the GAP to create an extended network, including the Montour Trail (a 61.5-mile branch that connects to Pittsburgh International Airport) and the C&O Canal Towpath (a 184-mile trail connecting Cumberland, Maryland, to Washington, D.C.).

Researchers from Saint Vincent College in Latrobe, Pennsylvania, conduct user counts along the GAP on a biannual basis. Counts showed a mid-range estimate of more than 867,000 trips in 2015, a 23% increase in trail use compared to 2013, a potential indication of trail connectivity benefits.[29]

Researchers also conduct studies on the economic impacts of the GAP on nearby areas. A 2013 study on hotel demand found that, among general demand generator user groups, GAP users were willing to pay the most for a hotel room ($125 per night). Most of the GAP trail users indicated they "will visit during peak demand periods and are relatively insensitive to price."[30]

Likewise, the Trail Town Program surveyed 562 trail users near 11 towns along the GAP in 2014. Of trail users, 62% were planning an overnight stay with an overnight spending average of $124.58, which was an increase of $26 from a similar survey conducted in 2008.[31] Business owners also responded to the survey and reported a sizeable increase in trail user traffic to their businesses between 2013 (the year of the trail's completion) and 2014.[32]

A business located along the Katy Trail in Missouri caters to trail users. | Photo by Flickr user N, CC by 2.0

Katy Trail

The Katy Trail connects 10 counties throughout the state of Missouri, a distance of 240 miles. Built on the former Missouri–Kansas–Texas Railroad, the Katy Trail is one of the longest rail-to-trail conversions in the country. The trail segment between St. Charles and Boonville, Missouri, is part of the Lewis and Clark National Historic Trail. Missouri State Parks acquired the first section of the Katy Trail in 1986, opening it in 1990. Upon donating 33 miles of rail corridor, Union Pacific Railroad acquired the second section of the trail in 1991. Additional sections opened in 1996 and 1999. Philanthropists Edward and Pat Jones played a critical role in lobbying the Missouri Legislature to use the former rail corridor, and later helped fund the acquisition and construction of the Katy Trail.

In 2010, Dan and Connie Burkhardt founded the Katy Land Trust, which seeks to preserve the lands around the Katy Trail by working with local landowners. In 2012, Missouri State Parks produced the Katy Trail Economic Impact Report, which estimated that the Katy Trail attracts around 400,000 visitors per year. Further analysis showed that these visitors have an economic impact of nearly $18.5 million per year.[33] More than 50% of visitor spending took place at restaurants, bars and overnight lodging near the Katy Trail.[34] The trail continues to be studied by rail-trail advocates who wish to replicate its economic success.

Another effort is focused on connecting the Katy Trail to Missouri's Rock Island Spur, which would create a 459-mile trail loop.[35] Additional connections would include the Kansas City trail network.

Getting There: Recommended Actions to Complete the C2P Corridor

This section builds on specific recommendations included in the Segment Analysis, presenting high-level strategies to fully develop the Cleveland to Pittsburgh (C2P) corridor. A county-level "closer look" identifies necessary steps and actions for gap-filling in the 11 counties along the C2P corridor. Steps and actions may differ for each state along the corridor, reflecting each state's unique strengths and challenges.

A Bird's-Eye View of What It Will Take to Bring the Trail to Life

Rails-to-Trails Conservancy (RTC) and other partners in and outside of Ohio, West Virginia and Pennsylvania will continue providing guidance, technical assistance, strategic planning and other resources to local trail groups and government entities as they work to complete their respective sections of the C2P corridor.

The following recommendations apply across the entire C2P corridor and include actions that may be taken by municipal governments, local trail groups and trail advocates.

Recommended Actions to Complete the C2P Corridor

- Continue participation in the C2P Corridor Working Group with representatives from all three states and 11 counties along the corridor.
- Enlarge the existing stakeholder network, engaging underrepresented sectors of the community (including people in socioeconomically depressed areas), the business and industry sector, tourism and economic development organizations, and appropriate state agencies.
- Ensure that state and local trail plans recognize the C2P corridor in their Statewide Comprehensive Outdoor Recreation Plans (SCORPs); city, county and regional trail plans; economic development plans; comprehensive plans; transportation plans; and more.
- Continue advocating for trail funding, construction and maintenance at the local, regional and state levels.
- Pilot an assessment of communities along the trail for tourism readiness and destination appeal, similar to what is happening along the Parkersburg-to-Pittsburgh (P2P) corridor from Parkersburg, West Virginia, to Pittsburgh, Pennsylvania.
- Actively engage related initiatives such as the Cuyahoga Greenway Partners in Ohio and the Weirton Area Reuse Plan to assist them with leveraging the related work of the C2P to maximize their goals.
- Continue to engage the Ohio Legislative Trails Caucus, encourage the West Virginia Legislature to organize and participate in a legislative trails caucus, and work to coalesce continued support in the Pennsylvania General Assembly.

Steps to Successfully Completing the C2P Corridor

The following is a list of steps to help complete the C2P corridor. The steps are largely linear, but many will need to be revisited over time. These steps are universal across the states, counties and cities/ towns along the corridor. Recommendations that are specific to certain geographies or municipalities are described later in the Specific County-Level Recommendations section. Several counties along the C2P corridor—i.e., Summit, Ohio; Stark, Ohio; and Washington, Pennsylvania—did not have specific recommendations and thus are not listed in the Specific County-Level Recommendations section.

Local Team Building

The first step with any trail project is to have a diverse, inclusive and committed team that works well together. The C2P Corridor Working Group comprises public officials and trail advocates from across the entire corridor. Members of the working group should continue to deepen their reach at the local level and broaden their network of supporters and stakeholders. Nonprofit partners can help energize municipalities and citizens to raise the profile of trail segments and encourage each respective municipality to lead the project within its borders.

Regional Connections

Coordinating between states, counties and other jurisdictions will be crucial to completing the C2P corridor. The corridor travels through three states, 11 counties, and many cities and towns. Encouraging communication and collaboration across jurisdictions, within the C2P Corridor Working Group, and with landowners along the corridor and near county borders will ensure seamless trail connections across state and county lines.

Broad Community Engagement

Being intentional about informing and engaging the broader community is critical to recruiting volunteers; raising funds for planning, design, construction and maintenance; and developing strategic partnerships. A well-thought-out and implemented public relations plan, as well as a diverse, broad range of trail programming like organized walks and rides, can enhance engagement and support. Partners should collaborate to include the C2P corridor in local mapping efforts. Where appropriate, partners also can consider an annual public meeting that updates residents on the trail work and provides the community with input and feedback opportunities.

Acquisition of—or a Permanent Easement Through—"Gap" Corridor Parcels

Understanding the status of the corridor and other needed parcels—and gaining control of this real estate—is obviously crucial, whether it is through acquisition, donation or establishment of an easement. Where there are gaps in the trail network, municipalities should conduct a thorough land ownership analysis, including where survey work is needed to further clarify land ownership. Local leadership should work with landowners to discuss easements and provide educational opportunities and community forums. Where appropriate, local leadership should also develop a packet for property owners that provides information on options and the benefits of rail-trail development.

Design and Cost Estimates for Trail Construction

A fully engineered trail design, complete with construction cost estimates, is required prior to construction and is often an eligibility requirement for federal and state funding programs. Design guidance for planned C2P trails is outlined in Appendix B (page 53). Actual trail costs for recent projects along the C2P corridor can be used to more accurately estimate costs for further trail development.

Construction of the Trail and Related Amenities

A properly designed and constructed trail will provide a better, safer experience for trail users, and will be easier and less expensive to maintain. As acquisitions along proposed corridors become possible and the design work is completed, each municipality will need to take ownership of the construction process, either in-house or by hiring outside expertise.

A Plan for Maintenance

Trails require maintenance, from mowing to surface repair and amenity and signage upgrades. It is critical to have a plan for maintenance, as well as an organization or entity committed to executing that plan. The Recreational Trails Program is a national source of funding that can be used for trail maintenance. Trail groups can also support state-level exploration of a trail maintenance funding program.

Specific County-Level Recommendations

Cuyahoga County, Ohio

Local Team Building

The trail development process in Cuyahoga County, Ohio, is robust. Cuyahoga Greenway Partners facilitates wider discussions with a broad range of partners, including Cuyahoga County, Cleveland Metroparks, the city of Cleveland, Canalway Partners, the Trust for Public Land, LAND studio and others.

To leverage the county's trail development successes, the county should document its process around developing, building and maintaining Cuyahoga County trails so that it can be replicated in other counties.

Regional Connections

Cuyahoga County currently links to Summit County via the Ohio & Erie Canal Towpath Trail. As the Industrial Heartland Trails Coalition (IHTC) continues to develop, the C2P corridor will connect to the Cleveland to Erie corridor along Lake Erie. Future discussions to continue lakefront connections heading east to facilitate the Cleveland to Erie corridor of the IHTC should be supported. The Northeast Ohio Areawide Coordinating Agency could play a crucial role in this process.

Broad Community Engagement

Cuyahoga Greenway Partners facilitates broad-based community engagement opportunities to encourage trail use and solicit feedback for planning and visioning purposes. Cleveland Metroparks, Canalway Partners, Bike Cleveland and other entities regularly conduct community outreach, including hosting events on local trails like the Ohio & Erie Canal Towpath Trail and engaging with community members via social media. To further these efforts, the nonprofit tourism organization Destination Cleveland should be engaged to promote and elevate the messaging that Cleveland is part of a regional and national trail tourism initiative.

Construction of the Trail and Related Amenities

Through a four-party agreement between the city of Cleveland, Cuyahoga County, Cleveland Metroparks and Canalway Partners, the remaining portions of the Ohio & Erie Canal Towpath Trail along the C2P corridor in Cuyahoga County are all designed, funded and under construction, with anticipated completion by early 2021.

Tuscarawas County, Ohio

Local Team Building

Tuscarawas County, Ohio, has a dedicated group of organizations working on trail development. The Tuscarawas County Park Department and the Tuscarawas County Commissioners are leading support for trail development in the county. The Ohio & Erie Canalway Coalition (OECC) is a private nonprofit organization working to develop the Ohio & Erie Canal Towpath Trail in Summit, Stark and Tuscarawas counties. The organization works closely with residents, the corporate community and government agencies in Tuscarawas County.

The governments of New Philadelphia, Dover and other localities within the county have also been supportive and are working diligently to facilitate trail connections. Muskingum Watershed Conservancy District has large landholdings and authority and is an active partner in seeking trail connections within the county.

To leverage its trail development successes, OECC should publish its process of forming technical assistance agreements with the Tuscarawas County Commissioners, the city of New Philadelphia and Harrison County Commissioners to assist with the design, planning, fundraising and maintenance of trails. Publishing information about this process and making it available for trail groups throughout Ohio will strengthen the build-out of the C2P corridor.

Regional Connections

The C2P corridor connects Tuscarawas County to three adjacent Ohio counties: Stark, Carroll and Harrison. The 2-mile gap into the Ohio village of Bolivar is anticipated to be filled in 2020 through the efforts of Tuscarawas County and OECC, which will complete the connection between Tuscarawas and Stark counties. Coordination with Carroll and Harrison counties will be crucial to completing the corridor. To this end, Tuscarawas County should re-engage the public relations subcommittee within the Tuscarawas County Park Advisory Committee to market trails and form new partnerships with tourism agencies like TourismOhio and the Ohio Travel Association.

Acquisition of—or a Permanent Easement Through—"Gap" Corridor Parcels

An acquisition and easement strategy should be developed regarding filling the C2P gap in Tuscarawas County. Option 4a would incorporate a larger number of entities that own land along the proposed corridor, including private and municipal owners. Option 4b would require less acquisition and easements, but would present the challenge of running adjacent to an active Wheeling & Lake Erie Railway corridor. To this end, county leadership and the Tuscarawas County Park Advisory Committee should consider developing an acquisition and easement strategy throughout Tuscarawas County.

Design and Cost Estimates for Trail Construction

Following land and easement acquisitions, the next step is design and engineering. OECC received a Clean Ohio Trails Fund grant to support the development of a quarter-mile section of Trail Gap 3 in Bolivar, Ohio. The county should use this grant proposal as a sample to inform future design decisions and cost estimation.

Harrison County, Ohio

Local Team Building

There has been some support from Harrison County, Ohio, including the Harrison County Engineer, around trail development in the past. Friends of the Conotton Creek Trail has been a stalwart of trail support in the county for many years and has interest in furthering trail development. OECC has also been an integral partner in advocating for trail development in Harrison County. Muskingum Watershed Conservancy District has large landholdings and authority in the county and is an active partner in seeking trail connections within the county—including the C2P corridor. These local organizations should come together to spearhead the development of the C2P corridor in Harrison County.

Acquisition of—or a Permanent Easement Through—"Gap" Corridor Parcels

Harrison County has a greater combined length of trail gaps than most other counties along the C2P corridor. An acquisition and easement strategy should be developed for Harrison County.

A Plan for Maintenance

Harrison County and Friends of the Conotton Creek Trail maintain the Conotton Creek Trail in Harrison County. The county can use this collaboration as a template for the rest of the C2P corridor as it is developed.

Carroll County, Ohio

Local Team Building

A leader for the development of the C2P corridor has not yet been identified in Carroll County, Ohio. The Carroll County Park District should be consulted and play a role in identifying a project lead in Carroll County.

Acquisition of—or a Permanent Easement Through—"Gap" Corridor Parcels

While the C2P corridor would pass through only a small portion in the southwest corner of Carroll County (along Trail Gap 4, from Zoar to Bowerston, Ohio), an acquisition and easement strategy should be developed to address land ownership concerns.

Jefferson County, Ohio

Local Team Building

There are multiple trail leaders in Jefferson County, Ohio, including the Jefferson County Soil and Water Conservation District (JSWCD) and the Brooke Hancock Jefferson Metropolitan Planning Commission (BHJ-MPC). JSWCD is a political subdivision of the state government that focuses on land management. BHJ-MPC undertakes the metropolitan transportation planning needs in Jefferson County, Ohio, as well as in Brooke and Hancock counties in West Virginia.

- Consider scheduling regular meetings with regional trail leaders like BHJ-MPC, JSWCD and Northern West Virginia Brownfields Assistance Center (NBAC) to strategize and combine resources.
- Conduct a detailed county trail plan for Jefferson County.
- Collaborate with Brooke County, West Virginia, and the West Virginia Department of Transportation's Division of Highways on a plan to monitor the condition of the Market Street Bridge, which crosses the Ohio River over the Ohio–West Virginia state line. Such a collaboration would ensure that all parties understand the condition and future possibilities for the bridge's use in the C2P vision.

Regional Connections

The C2P encounters two important regional connections in Jefferson County: 1) the Harrison–Jefferson county line in the west, and 2) the Ohio–West Virginia state line in the east. The county should work with BHJ-MPC, JSWCD and NBAC to create a group of local advocates and state and local planners—including representatives from Jefferson County, Ohio, and Brooke and Hancock counties in West Virginia—to monitor and support the development of the Market Street Bridge for bicycle/pedestrian use.

Acquisition of—or a Permanent Easement Through—"Gap" Corridor Parcels

JSWCD should continue working with landowners to determine acquisitions along the portion of the corridor through the county to the West Virginia state line.

Design and Cost Estimates for Trail Construction

JSWCD calculated cost estimates for trail design and construction of the Hellbender Preserve to submit a Clean Ohio Green Space Conservation Program grant application. JSWCD already has a match in place if the grant is accepted. Jefferson County should use the Hellbender Preserve cost estimates to inform cost estimation and subsequent funding for other trail projects in the county.

Construction of the Trail and Related Amenities

JSWCD is currently working to develop the Hellbender Preserve in Broadacre, Ohio. The planned Hellbender Preserve Trail would follow an abandoned rail line through lands to be included in the preserve, featuring historical bridges and tunnels.

- Continue with the development of the Hellbender Preserve Trail.
- Collaborate with state agencies like the Ohio Department of Natural Resources, the Ohio Department of Transportation and the State Historic Preservation Office to rehabilitate the historical bridges and tunnels to be included in the Hellbender Preserve.

Brooke and Hancock Counties, West Virginia

Local Team Building

Leadership for trail development in West Virginia's Brooke and Hancock counties is provided by NBAC, which is housed at West Virginia University in Morgantown, West Virginia. NBAC serves the northern 33 counties of the state, with collaborations extending statewide. NBAC worked with the city of Weirton to apply for federal Transportation Alternatives Program (TAP) funding to build on-street bicycle facilities through downtown Weirton. Additional collaboration between BHJ-MPC and project partners and supporters is necessary.

- Continue collaborating with NBAC, BHJ-MPC and the city of Weirton through monthly meetings and site visits.
- Form a local trails group to increase advocacy and support in Brooke County, West Virginia.
- Work in partnership with Brooke County, West Virginia, and the West Virginia Department of Transportation's Division of Highways on a plan to monitor the condition of the Market Street Bridge, which crosses the Ohio River over the Ohio–West Virginia state line. Such a collaboration would ensure that all parties understand the condition and future possibilities for the bridge's use in the C2P vision.

Regional Connections

Brooke County sits on the Ohio–West Virginia state line and is key to connecting the two states. Trail Gap 6, from the Ohio–West Virginia state line to Weirton, West Virginia, crosses the Market Street Bridge into West Virginia before traveling through Brooke and Hancock counties. Hancock and Brooke counties will need to continue collaborating to fill this C2P trail gap.

- Work with BHJ-MPC and NBAC to create a group of local advocates and state and local planners—including representatives from Jefferson County, Ohio, and Brooke and Hancock counties in West Virginia—to monitor and support the development of the Market Street Bridge for trail use.

- Generate plans for trail connections on the West Virginia side of the Market Street Bridge. Plans should include engineering and constructing a structure to bring trail users down from the bridge to the riverbank while also clearing the active Norfolk Southern rail line that runs along the Ohio River.

Acquisition of—or a Permanent Easement Through—"Gap" Corridor Parcels

There are a series of key corridor acquisitions in Brooke and Hancock counties. NBAC is working closely with landowners to secure easements throughout the corridor. Although still an active automobile thoroughfare, the Market Street Bridge is a crucial piece in connecting Ohio and West Virginia. With a newly constructed highway bridge set to open in the next few years, the Market Street Bridge will be decommissioned to vehicular traffic and could be repurposed as a bicycle/pedestrian bridge. Partners should:

- Continue to collaborate with NBAC on C2P efforts in Weirton, West Virginia.
- Support NBAC's efforts to work with local organizations to secure the corridor along a rail yard.
- Keep potential match funders informed of progress and reconvene them if the TAP proposal is approved.
- Support the city of Weirton, West Virginia, in surveying the land along Harmon Creek to determine ownership.
- Create a system to monitor the Market Street Bridge to determine when it will be decommissioned for vehicular traffic in the coming years.
- Coordinate with the West Virginia Department of Transportation's Division of Highways to determine the potential for retrofitting the Market Street Bridge for bicycle/pedestrian use. Begin a strategy for outreach to Norfolk Southern concerning the rail corridor along the Ohio River from the Market Street Bridge to Harmon Creek.

Design and Cost Estimates for Trail Construction

The TAP grant application to build on-street bicycle facilities on Main Street and Freedom Way within Weirton estimated $600,000 for the design and planning work of the project. Partners should:

- Consider applying for federal design funding for the potential future rehabilitation of the Market Street Bridge, including a structure to bring trail users from the bridge to a potential trail along the Ohio River.
- Once engineering and design funding is secured, convene monthly meetings with the stakeholder group's design leads and hired consultants. Provide summaries at monthly stakeholder group calls.

Construction of the Trail and Related Amenities

Upon completion of design and engineering, it is anticipated that the city of Weirton or another eligible entity will apply for construction funding to complete trail development.

- The city of Weirton should apply for construction funding to develop the proposed trail from the Ohio River to the existing Panhandle Trail.
- An eligible entity such as Brooke County or BHJ-MPC should apply for design and engineering funding for a connector from the Market Street Bridge to the confluence of the Ohio River and Harmon Creek.

Allegheny County, Pennsylvania

Local Team Building

Allegheny County, Pennsylvania; the city of Pittsburgh; Friends of the Riverfront; Montour Trail Council; and the Pennsylvania Environmental Council currently collaborate to lead trail development in the county. These partners should continue collaboration to determine a route to fill Trail Gap 7 from Coraopolis to Pittsburgh, Pennsylvania, along the C2P corridor.

Conclusion

No matter the subject, feasibility studies pose an inherent question: Is this project realistic and possible? In this instance, the question becomes: Is it realistic and possible to develop the Cleveland to Pittsburgh (C2P) corridor as a seamlessly connected multiuse trail? Rails-to-Trails Conservancy's (RTC) answer, backed by decades of rail-trail experience, is a resounding YES!

Acquiring gap segments; designing and constructing the trail; and maintaining, promoting and connecting the trail to nearby communities will not come without challenges. Continued coordination among dedicated partners, state agencies, local elected officials, decision-makers and—most importantly—community members from along the corridor will be at the core of this project's success. In reflecting on the totality of this C2P corridor feasibility study, several observations present themselves.

A 216- to 229-mile trail connecting two of the largest cities in the industrial heartland region would emerge from a fully developed rail-trail on the C2P corridor. This would make the C2P corridor a tourism destination for cyclists and pedestrians and a major piece of outdoor recreational infrastructure in Ohio, West Virginia and Pennsylvania. Completion of the C2P multiuse trail corridor would offer opportunities to develop Trail Towns, fueling local economic and community development in these states.

Closing the gaps will take a coordinated effort among community organizations; trail advocates; and local, county and state government. This work must involve volunteers, professionals, trail cheerleaders and decision-makers. Collaboration will be critical. The timeline for closing the gaps could range between five and 20 years. This work requires patience and persistence. Focused efforts and investment could help shorten the development timeline and expedite economic and community benefits.

No matter who you are or what your skills and interests are, there is a role for you. This effort builds on the decades of work done by local organizations and agencies throughout the corridor. Their hard work has laid a foundation without which this monumental effort could not possibly be fathomed. Whether you are a trail manager, trail builder, trail user or trail advocate; an economic developer, community developer, tourism professional or volunteer; an elected official, organizational leader or community member with time and energy, the C2P corridor needs your help to make this trail happen.

By becoming informed of this vision and the work being done to make it happen, you can become an ambassador locally and regionally, sharing what you know with others to enhance the visibility of the C2P effort. You can make your work on local trail projects within the corridor much more impactful and enticing to funders by tying them to this regional opportunity. Join your regional partners by engaging with the C2P Corridor Working Group, attending a meeting and adding to the effort to transform this special part of the country into a worldwide trail destination.

Opposite: Ohio & Erie Canal Towpath Trail in Cuyahoga Valley National Park


Duquesne Light

Appendix A – Cost Estimation Values and Sources

Rails-to-Trails Conservancy (RTC) staff sought costs from a variety of projects to inform the estimates in this report. RTC staff gave preference to more recent projects and those in the Ohio, West Virginia and Pennsylvania region. Where recent or local examples were not available, RTC staff used estimates from a resource compiled by the Pedestrian and Bicycle Information Center (PBIC) in 2013 titled "Costs for Pedestrian and Bicyclist Infrastructure Improvements." This resource presents costs from projects completed around the country, broken down into individual parts. Wherever this report uses costs older than 2015, RTC staff added additional dollars to account for inflation, per calculations presented in the PBIC resource.

Trail Construction

Trail construction is the main element of each of the reviewed projects and accounts for most of the cost. While asphalt provides a smoother trail surface, it tends to be more expensive than crushed stone. The most recent cost estimates show that the cost of asphalt varies by a factor of 4 and can be upward of $1 million per mile (Table 19), while the cost of crushed stone varies by a factor of 3 and is closer to $300,000 per mile (Table 20). A calculation was made to differentiate between the cost of asphalt trails built in urban, suburban or rural areas.

Table 19 – Trail Construction Cost Estimates, Low and High: Asphalt

Asphalt	Price per Mile (Low)	Source (Low)	Price per Mile (High)	Source (High)
Rural	$141,711	N.C., 2007 - Norwood Pedestrian Plan	$201,295	N.C., 2007 - Norwood Pedestrian Plan
Suburban	$476,411	Pa., 2013 - Pittsburgh to Coraopolis Feasibility Study N.C., 2007 - Norwood Pedestrian Plan	$587,684	Pa., 2013 - Pittsburgh to Coraopolis Feasibility Study N.C., 2007 - Norwood Pedestrian Plan
Urban	$811,111	Pa., 2013 - Pittsburgh to Coraopolis Feasibility Study	$974,074	Pa., 2013 - Pittsburgh to Coraopolis Feasibility Study

Table 20 – Trail Construction Cost Estimates, Low and High: Crushed Stone

	Price per Mile (Low)	Source (Low)	Price per Mile (High)	Source (High)
Crushed Stone	$84,268	Ind., 2010 - Northwestern Indiana Regional Planning Commission Ped & Pedal Plan	$170,584	Pa., 2018 - Jefferson County Soil and Water Conservation District

Opposite: Three Rivers Heritage Trail in Pittsburgh, Pennsylvania

Street Crossings

Where trails cross public streets, treatments need to be provided to increase visibility and awareness of the crossing. These treatments include crosswalks, signs and bollards (Table 21).

Table 21 – Street Crossing Cost Estimates, Low and High

	Price per Mile (Low)	Source (Low)	Price per Mile (High)	Source (High)
Crosswalks	$384	Ore., 2008 - Eugene Pedestrian and Bicycle Facility Design Toolkit	$1,500	Neb., 2010 - Bids.com
Signs	$150	Calif., 2010 - Lake Tahoe Region Bicycle and Pedestrian Plan	$2,000	Calif., 2010 - Lake Tahoe Region Bicycle and Pedestrian Plan
Bollards	$500	Pa., 2017 - Gibson-Thomas Engineering Sheepskin Estimates	$1,500	Mass., 2010 - Bids.com
Warning Beacons	$15,000 (per pair)	Pa., 2017 - Gibson-Thomas Engineering Sheepskin Estimates	$15,000 (per pair)	Pa., 2017 - Gibson-Thomas Engineering Sheepskin Estimates

Trailheads

There are several trailheads along the Cleveland to Pittsburgh (C2P) corridor that could use additional improvements for public usability. New trailheads are also needed at several locations. These trailheads can be added or upgraded using elements included in the cost estimates in Table 22.

Table 22 – Trailhead Cost Estimates, Low and High

	Price per Mile (Low)	Source (Low)	Price per Mile (High)	Source (High)
Directional Totems	$2,500	W.Va., 2014 - Mon River Trail Cost	$5,000	W.Va., 2014 - Mon River Trail Cost
Toilet	$20,000	W.Va., 2014 - Mon River Trail Cost	$25,000	W.Va., 2014 - Mon River Trail Cost
Benches	$600	N.C., 2007 - Norwood Pedestrian Plan	$2,000	Colo., 2011 - Wheat Ridge Bicycle and Pedestrian Conceptual Design and Cost Estimates
Trailhead Signage	$150	Calif., 2010 - Lake Tahoe Region Bicycle and Pedestrian Plan	$2,000	Calif., 2010 - Lake Tahoe Region Bicycle and Pedestrian Plan
Parking Area	$35,000	W.Va., 2014 - Mon River Trail Cost	$50,000	W.Va., 2014 - Mon River Trail Cost

Resurfacing

In Table 23, the low and high cost estimates for resurfacing asphalt and crushed stone trails are shown on a per-mile basis. The low estimate for resurfacing crushed stone trails uses a price per ton of crushed stone, which also includes delivery and compaction. The 2016 Deckers Creek Trail resurfacing project in West Virginia showed that approximately 316 tons of crushed stone were needed to resurface 1 mile of trail, which is how the estimates in this report were gathered.

Table 23 – Resurfacing Cost Estimates, Low and High

	Price per Mile (Low)	Source (Low)	Price per Mile (High)	Source (High)
Asphalt - 10' Wide	$118,093	N.C., 2007 - Norwood Pedestrian Plan	$167,746	N.C., 2007 - Norwood Pedestrian Plan
Asphalt - 12' Wide	$25,000	W.Va., 2014 - Mon River Trail Cost	$141,711	W.Va., 2014 - Mon River Trail Cost
Crushed Stone	$8,532 ($27/ton x 316 tons/mile)	W.Va., 2016 - Deckers Creek Trail Resurfacing	$83,333	W.Va., 2016 - North Bend Rail Trail Resurfacing


P.C.C.& P.C.C.&
ST.L.R.R ST.L.R.R
V.S.5 V.S.1
PENNSYLVANIA
WASHINGTON CO.
WEST VIRGINIA
BROOKE CO.

Appendix B – Design Guidance

Not all trails are alike. Some trails take travelers through quiet, forested areas without population centers for miles, while others navigate urban and commercial areas and require occasional interactions with automobiles. As such, trails need to be designed accordingly. This section highlights some of the design guidance for trails along the Cleveland to Pittsburgh (C2P) corridor. Rails-to-Trails Conservancy (RTC) encourages individual jurisdictions and trail managers to work with local trail users to design a trail that best suits their needs, pulling from the suggested guidance below.

Additional guidance is available in a variety of documents, including (listed by most recent):

- "Small Town and Rural Multimodal Networks"—Federal Highway Administration (FHWA), 2016
- "Urban Bikeway Design Guide"—National Association of City Transportation Officials (NACTO), 2014
- "Guide for the Development of Bicycle Facilities"—American Association of State Highway and Transportation Officials (AASHTO), 2012
- "Public Rights-of-Way Accessibility Guidelines"—United States Access Board, 2007
- "Guide for the Planning, Design, and Operation of Pedestrian Facilities"—AASHTO, 2004
- "Trails for the Twenty-First Century: Planning, Design, and Management Manual for Multi-Use Trails"—RTC, 2001

Trail Construction

A trail should be a minimum width of 10 to 12 feet in urban areas and places with more bicycle traffic. A width of 8 feet is allowable only in short, physically constrained segments. There should also be a 2-foot shoulder on each side of the path that allows for clearance of signposts and other vertical elements.

Choosing a trail surface depends on several factors, including accessibility, desired character (urban or rural), available funding and stormwater management. Table 24, below, is adapted from RTC's "Trails for the Twenty-First Century" and provides the life span, advantages and disadvantages of four surface material types.

Table 24 – Life Span and Characteristics of Trail Surface Types

Surface Material	Life Span	Advantages	Disadvantages
Asphalt	7–15 years	Hard, smooth surface; supports most types of use; all-weather; smooth surface to comply with the Americans with Disabilities Act (ADA) access guidelines; low maintenance	High installation and repair costs; not a natural surface; access needed for heavy construction vehicles; requires stormwater management consideration
Concrete	20+ years	Hard, smooth surface; supports most types of use; all-weather; smooth surface to comply with ADA access guidelines; low maintenance	High installation and repair costs; not a natural surface; access needed for heavy construction vehicles; requires stormwater management consideration
Granular/ Crushed Stone	7–10 years	Soft but firm surface; natural material; moderate cost; supports most types of use	Surface can rut and erode with heavy rainfall; regular maintenance needed to keep a consistent surface; replenishing stone may be a long-term expense
Native Soil	Depends on local conditions and use	Natural material; lowest cost; low maintenance; easiest for volunteers to build and maintain	Dusty; ruts when wet; not an all-weather surface; can be uneven and bumpy; possibly noncompliant with ADA access guidelines

Opposite: A marker along the Panhandle Trail denotes the state border between Pennsylvania and West Virginia. | Photo by Flickr user Stache21, CC by 2.0

Additional surface types (wood chips, recycled materials, etc.) are not explored in Table 24, as they do not meet the goal of maintaining an open trail for walking and biking in all but the worst of conditions at a reasonable price.

For more details on surface types and subsurface requirements, see Chapter 3 – Designing Your Trail in "Trails for the Twenty-First Century."

Bridges

Railroads were often built in the most direct line possible, frequently spanning rivers, creeks and other bodies of water. If a trail manager is lucky, the railroad will have left old bridges intact after abandoning the line. Such bridges are often in some state of disrepair but only need moderate upgrades to be made usable for non-motorized trail use. A certified structural engineer will be able to determine what, if any, upgrades are needed to ensure bridge stability for years to come.

Retrofitting a former rail bridge requires additional precautions for trail users. If the railroad is officially abandoned, the railroad ties and any ballast should be removed, and a new surface added to the bridge. If the railroad is railbanked, a wooden structure can be created to fit on top of the existing rail lines to save the step of potentially reinstalling rail in the future. Trail bridges also require adding some type of railing or low wall–if these do not exist already–to prevent users from slipping off the bridge.

If a trail needs to cross a body of water where a bridge has been removed or never existed, several options exist. A new bridge could be constructed, depending on access, available funds and environmental constraints. If the crossing is small, an older bridge or similar structure no longer in service may possibly be repurposed as a bridge at a fraction of the price of a new bridge. A certified structural engineer should be consulted to ensure the integrity of bridges old and new.

Trailheads

Trail users need to be able to access the trail from a variety of locations. Successful trails make these access points convenient and attractive. Parking lots should be provided at major trail access points, featuring clearly defined entrances, exits and parking spaces. For planning purposes, parking lots should be planned for 300 to 350 square feet per parking space, with at least one larger, accessible space for users with disabilities.

Public restrooms are another important component of trailheads. Major access points would benefit from the development of full-service restrooms with running water and flushing toilets where possible. At smaller trailheads or places where plumbing is not practicable, portable toilets are a convenient option. Water fountains are also encouraged at locations with access to plumbing. Where plumbing is not a possibility, trails can use signs pointing users to nearby parks or businesses that have agreed to provide water to trail users.

Where possible, benches and shelters should be provided as resting and gathering areas for trail users. Benches are ideally placed in the shade. Shelters should be at least 3 to 5 feet from the trail's edge and should include picnic tables. Bike racks are advised at trailheads, particularly those with shelters and restrooms. Secure bike racks that allow users to lock the frame of their bicycle are inexpensive. Such racks include the popular "u"-shaped racks. Artistic racks bearing the shapes of a local feature are a great way to incorporate public art to the trail experience.

Other important trailhead elements include signage indicating that the trailhead exists and outlining rules and etiquette for trail users. Maps let trail users know where they are in the system and where they can find amenities like bike shops, restaurants and lodging. Maps can take the form of paper maps held in some type of box or a laminated/protected map on a kiosk. Landscaping is also important to make the trailhead an attractive and desirable place to spend time.

Street Crossings

Trails occasionally must cross public streets with various speeds and traffic volumes. Ensuring that these crossings are well marked and visible is important to maintaining safety and a positive experience for trail users.

Except in areas with extremely low traffic volumes, crosswalks are highly encouraged at locations where the trail crosses a public street. Crosswalks should be of the ladder variety, rather than two parallel lines, to be visible from a standard approaching vehicle. Signs W11-2, W11-15, W11-15P and W16-7P of the Manual on Uniform Traffic Control Devices (MUTCD) should be used to warn approaching vehicles of the crossing location. W11-15P signs should also be used on the trail to warn trail users of the upcoming crossing.

In locations with a combination of particularly high speeds (35–40 mph or above) and high traffic volumes, median-enhanced crosswalks should be used. The median should be at least 8 feet wide to allow for a person on a bicycle to queue. Rectangular rapid flashing beacons should also be considered where sight lines make the crossing less visible. Medians and flashing beacons are what the FHWA calls "proven safety countermeasures" and should be seriously considered, particularly at crossings in urban areas like Cleveland and Steubenville, Ohio; Weirton, West Virginia; and Coraopolis and Pittsburgh, Pennsylvania.

The FHWA also provides guidance on visual obstructions at trail crossings, stating that: "Landscaping, barriers, or other visual obstructions should be low to provide unobstructed sight of the crossings from [a] major street. Both motorists and path users should have a clear and unobstructed view of each other at intersections and driveways."[36]

At locations where the trail crosses over or under public streets, signage should be provided to indicate the name of the road being crossed. Small location signs can provide trail users a better clue as to where they are and make the experience more user-friendly.

On-Street Sections

At certain points along the C2P corridor, the trail will need to either briefly share the road with or run directly alongside vehicles. Sharing the road on a trail like this is an option only for very brief stretches where off-street connections are unavailable. In those cases, sidewalks, bike lanes and/or shared-lane markings ("sharrows") should be provided to accommodate all users.

Sidewalks should maintain a minimum of 5 feet of clearance, free from obstructions such as signs and utility poles, to ensure safe passage by wheelchair users. Sidewalks should also be at a level grade and of a smooth surface.

Bike lanes should be provided where possible to encourage people to ride their bicycles on the street rather than the sidewalk, where bicyclists experience conflicts with pedestrians, are less visible, and are more likely to get into a crash with turning motor vehicle traffic. Bike lanes are separated lanes within the roadway, often designated by paint, and should be a minimum of 5 feet wide.

Where possible, bike lanes should also be protected from moving traffic, creating a protected or buffered bike lane. Protection can be provided through measures including parked vehicles, flexible delineator posts, hard bollards or raised curbs. Physical protection can continue the trail-like experience for a bicyclist using on-street sections.

Where bike lanes are not possible, sharrows should be utilized. These shared-lane markings provide visual placement cues to both bicyclists and drivers to prevent conflicts on the roadway. Additional signage indicating the trail or corridor name should also be used to indicate shared-use bike routes.

Guidance on the design and placement of bike lanes and sharrows can be found in AASHTO's "Guide for the Development of Bicycle Facilities" or NACTO's "Urban Bikeway Design Guide."

Resurfacing

Trails need to be resurfaced after the useful life of the original surface has passed. Natural surface trails (crushed stone, native soil, etc.) should be resurfaced every 20 years, while asphalt and concrete trails should be resurfaced every 10 years. Trails experiencing greater use or suffering the effects of significant weather or natural events should be resurfaced more frequently. The cost of resurfacing should be factored into the cost of trail construction and planned for by the trail's managing entity.

Appendix C – Funding Sources

Federal and State Funding

Transportation Alternatives Program

The Federal Highway Administration (FHWA), through respective state departments of transportation, administers the Transportation Alternatives Program (TAP). The program awards funding for nontraditional transportation projects, including design and construction of trails.

Transportation Alternatives are federally funded, community-based projects that expand travel choices and enhance the transportation experience by integrating modes and improving the cultural, historical and environmental aspects of transportation infrastructure. TAP projects must be one of 10 eligible activities and must relate to surface transportation.

Projects can include, for example, the creation of bicycle and pedestrian facilities; streetscape improvements; refurbishment of historical transportation facilities; and other investments that enhance communities, connections and access. The federal government provides funding for TAP projects through federal aid highway transportation legislation.

Details on this program can differ by state and are described in more detail below.

Recreational Trails Program

The Recreational Trails Program (RTP) is also administered through FHWA. RTP provides funding opportunities for states to build and maintain trails and trail-related facilities. A Recreational Trails Advisory Board appointed by the governor typically reviews applications, then recommends awards to the state secretary of transportation.

Eligible entities for RTP funding include nonprofit organizations, local governments, regional transportation authorities, transit authorities, natural resource or public land agencies, school districts, local education agencies or schools, tribal governments, or any other local or regional governmental entity with responsibility for transportation or recreational trails (other than a metropolitan planning organization or state agency) that the state determines as eligible.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) federal program supports the protection of federal public lands and waters—including national parks, forests, wildlife refuges and recreation areas—and voluntary conservation on private land. LWCF investments secure public access, improve recreational opportunities and preserve ecosystem benefits for local communities.

LWCF State Grants Program

The LWCF State Grants program provides matching grants to state and tribal governments for the acquisition and development of public parks and other outdoor recreation sites. The LWCF State Grants program has funded projects in every county in the country, for a total of 41,999 projects and $3.9 billion in funding since 1965.

Congestion Mitigation and Air Quality Improvement Program

The Congestion Mitigation and Air Quality Improvement (CMAQ) program supports surface transportation projects and other related efforts that contribute to air quality improvements and provide congestion relief. CMAQ provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the federal Clean Air Act. CMAQ funding is available to reduce congestion and improve air quality for areas that do not meet the Environmental Protection Agency's (EPA) National Ambient Air Quality Standards for ozone, carbon monoxide or particulate matter ("nonattainment areas") and for former nonattainment areas that are now in compliance ("maintenance areas"). This program is run through state metropolitan planning organizations (MPOs).

Economic Development Administration

Among the various programs administered by the U.S. Department of Commerce's Economic Development Administration (EDA) is the Public Works program. The investment program provides funding with the goal of empowering distressed communities to revitalize, expand and upgrade their physical infrastructure. Among other uses, EDA Public Works funds can help redevelop brownfield sites and increase eco-industrial development. The EDA also offers limited local technical assistance to distressed areas in times of need. Learn more at: **eda.gov**.

Ohio

Transportation Alternatives Program

The Ohio TAP provides funds for projects that advance non-motorized transportation facilities, historical transportation preservation, and environmental mitigation and vegetation management activities. The Ohio Department of Transportation (ODOT) encourages adding alternatives to planned transportation projects rather than stand-alone projects. TAP-funded activities must be accessible to the public or targeted at a broad segment of the public. ODOT's TAP funds are for projects sponsored by local governments outside the county boundaries of MPOs, unless the locale is within a small MPO (population less than 200,000) that has opted to join the ODOT program. Learn more about ODOT's TAP guidance at: **rtc.li/Ohio-DOT-TA**.

Opposite: Herrs Island Bridge along the Tree rivers Heritage trail in Pennsylvania | Photo by Ryan Cree

MPOs within the Cleveland to Pittsburgh (C2P) corridor in Ohio that have TAP funds available include:

- Northeast Ohio Areawide Coordinating Agency
- Akron Metropolitan Area Transportation Study
- Stark County Area Transportation Study
- Brooke Hancock Jefferson Metropolitan Planning Commission

Recreational Trails Program

The Ohio Department of Natural Resources (ODNR) administers the RTP for the state. Eligible entities include cities and villages, counties, townships, special districts, state and federal agencies, and nonprofit organizations.

Funding is an 80/20 reimbursement in which up to 80% in matching federal funds is reimbursed, while 20% needs to be procured locally. The local match can be either cash or "soft" match activities including using local labor, material donations, land donations and more.

Eligible projects include development of urban trail linkages, trailheads and trailside facilities; maintenance of existing trails; restoration of trail areas damaged by usage; improvement of access for people with disabilities; acquisition of easements and property; development and construction of new trails; purchase and lease of recreational trail construction and maintenance equipment; and environmental and safety education programs related to trails.

Applications are due February 1 of each year. Learn more at: **rtc.li/Ohio-ORFG**.

Clean Ohio Fund

The Clean Ohio Fund restores, protects and connects Ohio's natural and urban places by preserving green space and farmland and improving outdoor recreation. Formerly, the Clean Ohio Fund also cleaned up brownfields to encourage redevelopment and revitalize communities. The program's funding for recreational trails (described in more detail below), green space conservation (described in more detail at right) and farmland preservation provides $6.25 million, $37.5 million and $6.25 million annually, respectively.

Clean Ohio Recreational Trails Fund

This state-funded reimbursement grant program, administered by ODNR, provides up to 75% of project funding. The recipient must provide at least 25% of the project cost. Items of value, such as contributions of land; easements; or other interests in land, eligible labor or eligible materials, may be considered as contributing toward the percentage of the cost of a recreational trail project that must be provided by the grant recipient.

The following types of projects are eligible for Clean Ohio Recreational Trails funding:

- New recreational trail construction (emphasis is on linear trails)
- Acquisition of property and easements for recreational trails or trail corridors
- Trailhead facilities (if a relatively small component of a trail construction project)
- Planning, appraisals, title work, surveys, engineering design costs, environmental research and archaeological surveys associated with a specific recreational trail project (these costs not eligible as a stand-alone project)

Clean Ohio Recreational Trails funding is available to cities; villages; counties; townships; special districts such as park districts, joint recreation boards or conservancy districts; jointly sponsored projects between political subdivisions; and nonprofit organizations. All projects must be completed within 15 months from the date that they are signed into contract.

Applications are due February 1 and grant decisions are announced in the fall. Learn more at: **https://development.ohio.gov/cleanohio/RecreationalTrails/**.

Clean Ohio Green Space Conservation Program

The Ohio Public Works Commission (OPWC) administers this program to fund preservation of open spaces, sensitive ecological areas and stream corridors. Special emphasis is given to projects that:

- Protect habitats for rare, threatened or endangered species;
- Preserve high-quality wetlands and other scarce natural resources;
- Preserve streamside forests, natural stream channels, functioning floodplains and other natural features of Ohio's waterways;
- Support comprehensive open space planning;
- Secure easements to protect stream corridors, which may be planted with trees or vegetation to reduce erosion and fertilizer/pesticide runoff;
- Enhance ecotourism and economic development related to outdoor recreation in economically challenged areas;
- Provide pedestrian or bicycle passageways between natural areas and preserves;
- Reduce or eliminate nonnative, invasive plant and animal species; and/or
- Provide safe areas for fishing, hunting and trapping in a manner that supports a balanced ecosystem.

The Clean Ohio Green Space Conservation Program provides grants for up to 75% of the estimated costs for projects. Applicants must apply to the Natural Resource Assistance Council (NRAC) with geographical jurisdiction over the proposed project area, and must contact that NRAC for any specific requirements, including its application schedule. For information on the current NRAC chair, NRAC liaison or the OPWC program representative for your project location, call OPWC at 614.466.0880 or visit **pwc.ohio.gov/Programs/Clean-Ohio-Application**.

NatureWorks

NatureWorks projects are funded through the Ohio Parks and Natural Resources Bond Issue, which was approved by Ohio voters in 1993. This grant program provides up to 75% reimbursement assistance to local government subdivisions (i.e., townships, villages, cities, counties, park districts, joint recreation districts and conservancy districts) for the acquisition, development and rehabilitation of recreational areas. Each subdivision is allocated up to $150,000 annually, with a required 25% match that can include in-kind donations such as land and labor. Applications are due on June 1. Other grant program specifications include:

- All local subdivisions of government are eligible; local school boards are ineligible.
- Local governments can apply for up to 75% reimbursement grants in state funding for acquisition, development or rehabilitation of public park and recreational areas.
- The agency must have proper control (title or at least a 15-year non-revocable lease) to be eligible for a development or rehabilitation grant.

Learn more at: **rtc.li/Ohio-NW**.

Land and Water Conservation Fund

The LWCF grant program in Ohio provides up to 50% reimbursement assistance for state and local government subdivisions (i.e., townships, villages, cities, counties, park districts, joint recreation districts and conservancy districts) for the acquisition, development and rehabilitation of recreational areas. The maximum project award is $500,000 and the minimum award is $50,000.

Funding is issued to the state and it is at the state's discretion as to how much of that funding will be made available for local government. Since the LWCF grant program became effective, the state of Ohio has received more than $150 million in funding. Over half of this has been used for local park projects.

To be eligible for federal LWCF grant assistance, Ohio prepares and updates its Statewide Comprehensive Outdoor Recreation Plan (SCORP) every five years. Ohio reviews LWCF grant applications and submits recommended projects to the National Park Service for final approval. All recommended projects must be in accord with Ohio's SCORP priorities. Applications are due in November. Learn more at: **rtc.li/Ohio-ORFG**.

LWCF Outdoor Recreation Legacy Partnership Program

The National Park Service provides a grant opportunity for qualifying urban areas. Projects within the Ohio urban areas listed below are eligible for funding. Applicants must be political subdivisions of government and must own the property where the project will occur. For land acquisition projects, the buyer and intended owner must be a political subdivision of government. Eligible urban areas are: Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Elyria, Hamilton, Kettering, Lakewood, Lorain, Parma, Springfield, Toledo and Youngstown.

Applications must be submitted to ODNR and are due in late June. All submitted applications will be pre-scored. Up to three top-scoring applications will be submitted to the National Park Service for consideration. Learn more at: **rtc.li/Ohio-LWCF**.

Private Foundations

Many foundations provide grants for trail and greenway projects, open space preservation, community development and community health. To obtain larger contributions from foundations, a full-fledged funding proposal is usually required. The proposal should illustrate the communitywide value of the trail and describe how it will be developed and maintained.

Foundations that serve Ohio communities along the C2P corridor include:

Akron Community Foundation
akroncf.org

Cleveland Foundation
clevelandfoundation.org

The George Gund Foundation
gundfoundation.org

Knight Foundation
knightfoundation.org

West Virginia

Transportation Alternatives Program

Eligible entities for the West Virginia TAP include local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts, local education agencies or schools, tribal governments, or any other local or regional governmental entity with responsibility for transportation or recreational trails (other than an MPO or state agency). State natural resources and public land entities are eligible. Aside from being an eligible entity, the project must have a relationship to surface transportation and must "be one of the qualifying activities set by law," according to TAP.

Notably, there is no longer a maximum amount awarded by West Virginia TAP grants. There is generally an 80/20 match requirement, meaning the grant covers 80% of costs, with the remaining 20% secured from another source. Match requirements may vary based upon the Appalachian Regional Commission (ARC) county designation. If a county is classified as an ARC-distressed or an ARC-at-risk county, the match requirement may increase to meet the needs of the county. The Intent to Apply is usually due in November, with the full application usually due in January. Learn more at: **rtc.li/transportation-WV-TA** or contact the TAP program coordinator at 304.558.3783.

Recreational Trails Program

A maximum of $150,000 per project is awarded under the West Virginia RTP. There is generally an 80/20 match requirement, meaning the grant covers 80% of costs, with the remaining 20% secured from another source. Match requirements may vary based upon ARC county designation. If a county is classified as an ARC-distressed or an ARC-at-risk county, the match requirement may increase to meet the needs of the county. The Intent to Apply is usually due in November, with full applications usually due in January. Learn more at: **rtc.li/transportation-WV-RT** or contact the RTP grant administration unit leader at 304.558.9292.

Flex-E-Grant Program

The Flex-E-Grant program is a joint grant program administered through the West Virginia Development Office and ARC, with support from the Claude Worthington Benedum Foundation. The Flex-E-Grant program helps increase the capacity and leadership skills of individuals, institutions and communities throughout West Virginia. The program focuses specifically on assisting the state's ARC-distressed counties. In 2017, a Flex-E-Grant application workshop aided applicants throughout the grant application process.

Eligible applicants include nonprofit or other public agencies, colleges and universities (and their affiliates) that operate programs and/or curricula related to leadership or capacity-building activities; regional planning and development councils; or a combination of any of the above. Grants are awarded up to $10,000. The program states that requests exceeding $10,000 in total project cost "may be considered for projects that can secure the required match and show significant economic and/or community development impact or address a significant and critical need."

Match requirements are based upon West Virginia's ARC-distressed counties; please see the guidelines at right for further detail. The deadline for the Flex-E-Grant program is early- to mid-January. Learn more at: **wvcad.org/resources** or contact the West Virginia Development Office at 304.558.2234.

Guidelines on West Virginia's ARC-distressed counties:

- For projects in distressed counties, the maximum Flex-E-Grant participation rate will be 90% of the total project cost.
- For projects in at-risk counties, the maximum Flex-E-Grant participation rate will be 85% of the total project cost.
- For projects in transitional or competitive counties, the maximum participation rate will be 80% of the total project cost.
- For projects that contain a combination of distressed, at-risk and/or transitional counties, the following match guidelines apply:
    - If the project area contains one (1) at-risk county, the maximum Flex-E-Grant participation rate will be 85% of the total project cost.
    - If the project area contains one (1) transitional or competitive county, the maximum Flex-E-Grant participation rate will be 80% of the total project cost.

Land and Water Conservation Fund

The West Virginia Development Office administers the LWCF program. LWCF provides federal funding for acquisition or development of public outdoor recreational spaces.

Eligible entities include local government, independent park boards, commissions, districts and state government. Project proposals must be consistent with West Virginia's SCORP. Priority is given to proposals that include park renovations or expansions promoting active lifestyles, development of community cores, increased attraction and retention of visitors, development of trailheads, development of brownfield renewal efforts or preservation of natural areas to achieve community health objectives.

A maximum of $400,000 is awarded by LWCF. There is a 50/50 match requirement, meaning the grant covers 50% of costs, with the remaining 50% secured from another source. The application deadline is early- to mid-April. Learn more at: **wvcad.org/resources** or contact the West Virginia Development Office at 800.982.3386 or 304.558.4010.

Private Foundations

Many foundations provide grants for trail and greenway projects, open space preservation, community development and community health. To obtain larger contributions from foundations, a full-fledged funding proposal is usually required. The proposal should illustrate the communitywide value of the trail and describe how it will be developed and maintained.

Foundations that serve West Virginia communities along the C2P corridor include:

Claude Worthington Benedum Foundation
benedum.org

Dominion Energy Charitable Foundation
rtc.li/Dominion-E-Foundation

EQT Foundation
eqt.com/community/eqt-foundation

Pennsylvania

Community Conservation Partnerships Program

The Pennsylvania Department of Conservation and Natural Resources' Bureau of Recreation and Conservation assists local governments and recreation and conservation organizations with funding for projects related to parks, recreation and conservation. The Community Conservation Partnerships Program also includes federal funding sources, such as the TAP, LWCF and RTP programs.

Transportation Alternatives Set-Aside

Pennsylvania's Transportation Alternatives Set-Aside program, administered by the Pennsylvania Department of Transportation (PennDOT), provides funding for projects and activities including on- and off-road pedestrian and bicycle facilities; infrastructure projects for improving non-driver access to public transportation and enhancing mobility; community improvement activities; environmental mitigation; trails that serve a transportation purpose; and Safe Routes to School projects.

Multimodal Transportation Fund

PennDOT's dedicated Multimodal Transportation Fund stabilizes funding for ports and rail freight, increases aviation investments, establishes dedicated funding for bicycle and pedestrian improvements, and allows targeted funding for priority investments in any mode of transportation.

Learn more about the above grant opportunities at: **rtc.li/multimodal-PennDOT**.

Greenways, Trails and Recreation Program

The Greenways, Trails and Recreation Program, administered by the Pennsylvania Department of Community & Economic Development, can be used for projects that involve the development, rehabilitation and improvement of public parks, recreation areas, greenways, trails and river conservation.

Learn more at: **rtc.li/PA-dced-greenways-trails-rec**.

Neighborhood Assistance Program

The Neighborhood Assistance Program (NAP), also administered by the Pennsylvania Department of Community & Economic Development, is a tax credit program designed to encourage businesses to invest in projects benefiting distressed neighborhoods and low-income individuals. Categories of projects include community economic development, community services, neighborhood assistance for physical improvements, neighborhood conservation and crime prevention.

Contributing businesses may receive a tax credit of up to 55%. Nonprofit community organizations are eligible to receive the funds and must commit to the program for one year. NAP has multiple components, including the Special Program Priorities and Neighborhood Partnership Program, outlined at right.

- **Special Program Priorities:** For distressed areas and low income populations, this program can be used for a variety of activities, including blight elimination. Contributing businesses may receive a tax credit of up to 75%. Nonprofit community organizations are also eligible to receive the funds and must commit to the program for one year.
- **Neighborhood Partnership Program:** This program is designed to address specific development needs as identified by a preexisting community strategic plan in a distressed, low-income area. A five-year commitment is eligible for a tax credit of up to 75% for participating businesses. A six-year or longer commitment of a minimum of $50,000 per year is eligible for a tax credit of up to 80%.

Learn more at: **rtc.li/PA-dced-neighborhood**.

Redevelopment Assistance Capital Program

The Redevelopment Assistance Capital Program (RACP), administered by the Pennsylvania Office of the Budget, is a commonwealth grant program for the acquisition and construction of regional economic, cultural, civic, recreational and historical improvement projects. Program projects are authorized in the Redevelopment Assistance section of the Capital Budget Itemization Act; have a regional or multijurisdictional impact; and generate substantial increases or maintain current levels of employment, tax revenues or other measures of economic activity. RACP projects are state-funded projects that cannot obtain primary funding under other state programs.

Learn more at: **rtc.li/budget-pa**.

Private Foundations

Many foundations provide grants for trail and greenway projects, open space preservation, community development and community health. To obtain larger contributions from foundations, a full-fledged funding proposal is usually required. The proposal should illustrate the communitywide value of the trail and describe how it will be developed and maintained.

Foundations that serve Pennsylvania communities along the C2P corridor include:

Claude Worthington Benedum Foundation
benedum.org

The Heinz Endowments
heinz.org

Hillman Family Foundations
hillmanfamilyfoundations.org

The Pittsburgh Foundation
pittsburghfoundation.org

Richard King Mellon Foundation
rkmf.org

Notes

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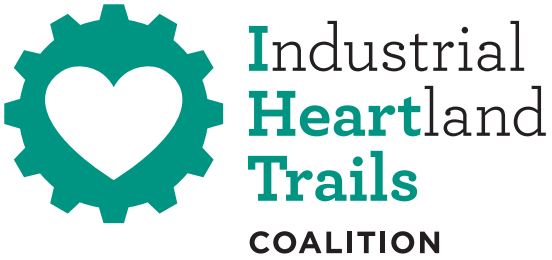
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