



Strategies

Part 1 of 3



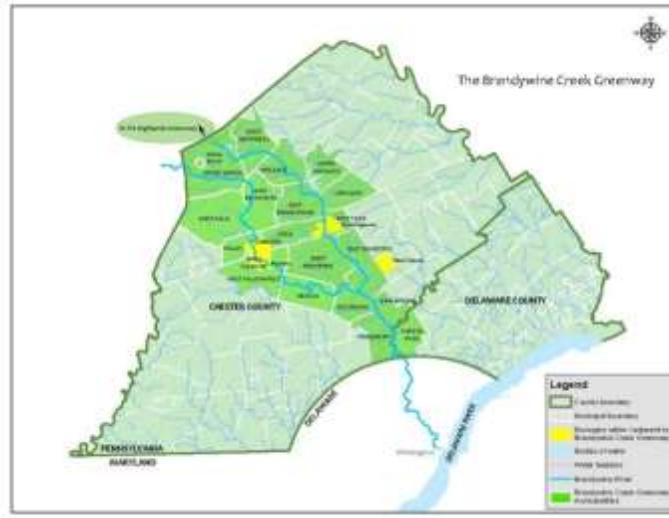
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Introduction



The Strategic Action Plan for the Brandywine Creek Greenway consists of three distinct and separate documents:

1. Part I of 3 (Strategies) provides organizational strategies and broad natural and cultural resource conservation strategies that are relevant to all twenty-four greenway municipalities.
2. Part 2 of 3 (Municipal “To Do” Packets) consists of 24 chapters with each containing information unique to a single greenway municipality. The focus of this document is on clearly-defined recreation, transportation, and green corridor initiatives.
3. Part 3 of 3 (Took Kit) provides a suite of conservation tools and resource maps that are intended to provide guidance for greenway municipalities according to their unique circumstances and priorities.

Part 1, Strategies, will guide municipalities, Chester County, Delaware County, and the Brandywine Conservancy towards implementing the vision for the Brandywine Creek Greenway as articulated in the Concept Plan and Addendum. It provides a path towards organization for the Brandywine Creek Greenway enablers and lists short, medium, and long term strategies to be implemented over a 20+ year timeframe beginning in 2014.

- Valley Township Sally Winterton
Karen Chandler
- Wallace Township Tish Molloy
- West Bradford Township Terry Gallagher
Tommy Ryan
- West Brandywine Township Bob Schini
John Cassels
- West Caln Township Gary Dunlap
- West Nantmeal Township Susan Ward

- Agency representatives
 - DCNR Cindy Dunlap
Jeff Knowles
Drew Gilchrist
 - Chester County Jake Michael
Carol Stauffer
Karen Marshall
 - Delaware County Steven Beckley
 - Brandywine Conservancy Sheila Fleming
Wes Horner
Meredith Mayer
Tony Robalik
John Snook
John Theilacker

Water

– the elixir of life. All living things rely upon water to survive and thrive.

Water falls from the skies. It seeps across soils, through underground rock, and fills our streams, creeks and rivers. It seeps into every aspect of human lives. We drink it, prepare our food with it, we bathe in it. We rely on water to serve industry, agriculture, and recreation.

The Brandywine Creek and its tributaries impact the lives of an estimated 500,000 people who live in its watershed, and it has played an important role in the lives of those who have lived here for hundreds of years. The Brandywine Creek and surrounding lands are a functioning greenway today thanks to the municipalities, county and state governments, and private landowners who have successfully protected and conserved many of the resources along the Brandywine. Approximately 24% of land within the 24-municipality greenway study area is permanently protected. Countless conservation-minded land owners and land trusts have protected over 36,000 acres of private land by donating or selling development rights. Another 5,000 acres of private open space controlled by Homeowners Associations are permanently protected by deed restriction. Municipal, county, and state governments have acquired an impressive 4,000 acres of public open space within the Brandywine Creek Watershed including one national historic landmark, one national monument, three state parks, and over forty municipal parks.

While land and water conservation is the primary motivation for the greenway, certain municipalities recognize the value in providing access to those natural resources that they work hard to protect. Sidewalks, footpaths, multi-use trails, bicycle routes and boat launch areas are important facilities that allow people to connect with their natural environment. Trails can provide unparalleled opportunities for environmental education/appreciation for users of all ages and abilities. Over sixty miles of trails and sidewalks are scattered along the corridor today. Several regional trails, included in The Circuit trail network of greater Philadelphia, exist or are planned within the Greenway: the Struble Trail; Uwchlan Trail; Chester Valley Trail; and the Octorara Trail. Many more trails, including the Brandywine Trail, provide important neighborhood connections into the regional trail network.

Community – Conservation – Connection

Is the mantra for the Brandywine Creek Greenway.

The purpose of the Strategic Action Plan is to set forth actions required to implement the Concept Plan for the Brandywine Creek Greenway (Concept Plan for the Brandywine Creek Greenway, June 2012; West Branch Addendum, April 2013) (see map, figure 1). This Plan identifies the 24 municipalities, government agencies, land trusts, and others responsible to lead those actions within a 20+ year work plan. Rooted in the Concept Plan, this Plan embraces the following Goals and Objectives for the Brandywine Creek Greenway:

Goal 1 Transportation

To provide safe transportation alternatives for walking, bicycling, and equestrian users.

Objective 1 Preserve and maintain existing multi-use trails and develop connecting links between greenway hubs and major destinations.

Objective 2 Enhance the safety along existing bike routes.

Objective 3 Provide safe transportation for existing horse-drawn carriage routes, especially in agricultural areas.

Goal 2 Conservation

To protect and improve vital natural resources within the Brandywine watershed.

Objective 1 Maintain, enhance, and restore habitat corridors.

Objective 2 Protect existing riparian corridors.

Objective 3 Restore forest cover along riparian buffers.

Objective 4 Preserve existing woodlands.

Objective 5 Preserve agricultural lands and soils.

Objective 6 Preserve and enhance water quality.

Objective 7 Protect sensitive plant and animal habitats and important bird areas from recreational overuse.

Goal 3 Recreation

To promote and enhance the recreational use of municipal, county, and state-owned open space.

Objective 1 Create an interconnected network of pedestrian and bicycle paths that connect neighborhoods to public recreational lands and schools.

Objective 2 Protect and expand the equestrian trail network to connect with Marsh Creek State Park, Honey Brook Borough, Elverson Borough, Welsh Mountain Trail, Struble Trail, and the Horseshoe Trail.

Objective 3 Ensure that residents of all ages and abilities have access, where feasible, to recreational facilities such as parks and trails.

Objective 4 Improve public access to the Brandywine Creek.

Goal 4 Flood Control

To mitigate flooding in flood-prone areas.

- Objective 1 Reduce impervious surfaces and increase infiltration in developed headwater areas.
- Objective 2 Increase percentage of tree cover to reduce runoff and maximize evapotranspiration.
- Objective 3 Observe recommendations in the Act 167 Stormwater Management Plan for Chester County, as appropriate.

Goal 5 Culture

To preserve nationally and municipally-designated historic resources and their surrounding landscapes.

- Objective 1 Protect and promote the historic structures, districts, trails, and cultural features of the Brandywine Valley.
- Objective 2 Link historic features.

Goal 6 Aesthetics

To protect state- and municipally-designated scenic resources and buffer scenic resources from new development.

- Objective 1 Preserve the scenic integrity of the Lower Brandywine [PA Scenic River Corridor](#).
- Objective 2 Protect and preserve the scenic resources along the [Brandywine Valley Scenic Byway](#).
- Objective 3 Designate new scenic roads where deemed appropriate.

Goal 7 Education

To foster education of the Brandywine Creek and its watershed.

- Objective 1 Raise awareness of the importance of conservation and best land management practices.
- Objective 2 Educate residents regarding the natural, recreational, and cultural features within the greenway corridor.
- Objective 3 Raise awareness of the regional context and local identity of the greenway with area stakeholders and groups such as the Delaware Valley Regional Planning Commission (DVRPC), Chester County Planning Commission (CCPC), and the PA Department of Conservation and Natural Resources (DCNR).

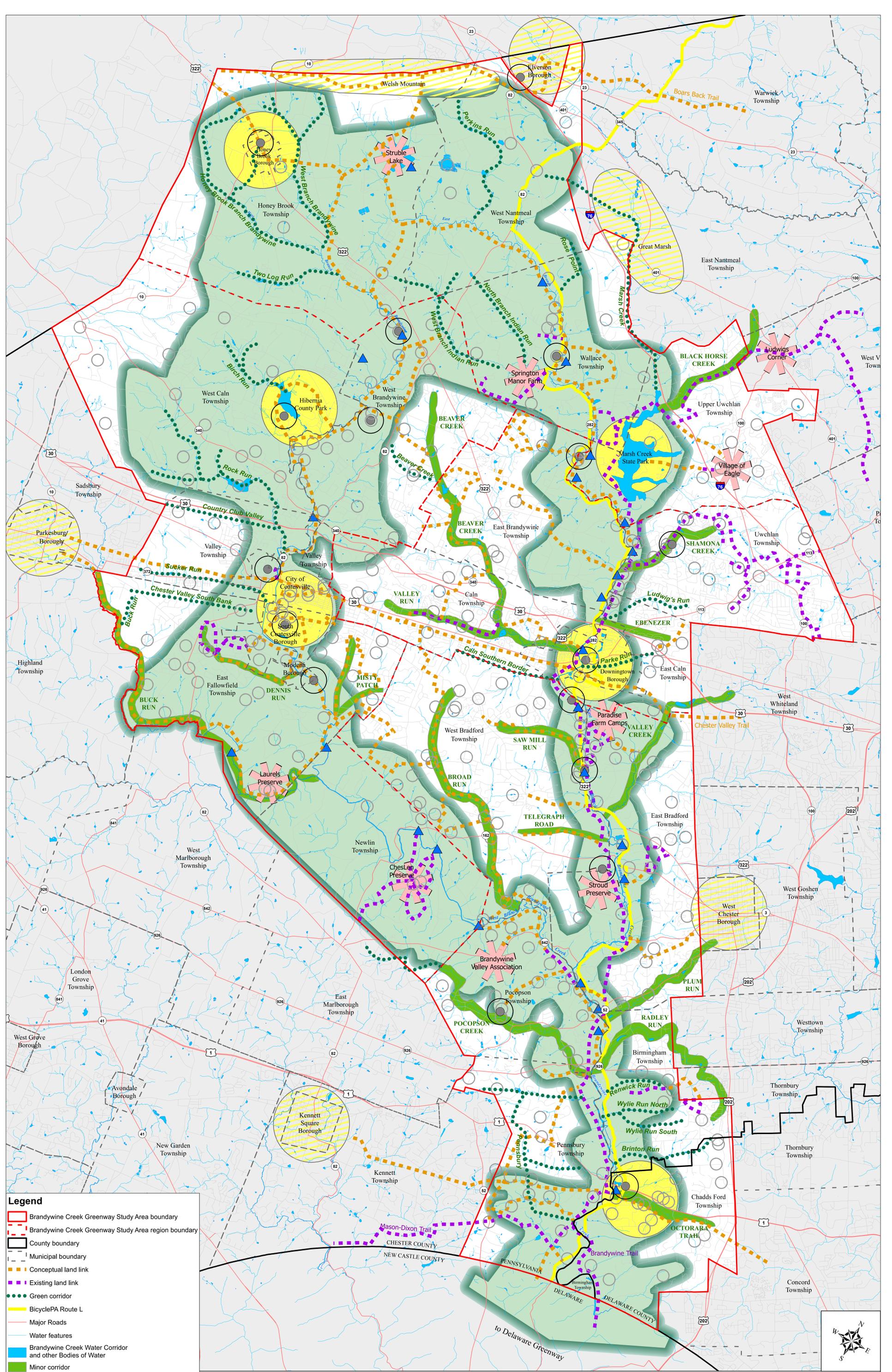
Goal 8: Economic Prosperity

To foster economic activity in urbanized areas

- Objective 1 Increase the number of visitors to existing recreational facilities within the greenway.
- Objective 2 Implement regional open space and transportation initiatives such as the Central Chester County Bicycle and Pedestrian Circulation Plan, the Struble Trail, and the Chester Valley Trail.
- Objective 3 Promote the city and boroughs as trail towns that offer a range of goods and services for greenway visitors.

The strategies, outlined below, are organized into four topics: Organization and Management; Recreation and Transportation; Natural Resource Conservation; and Cultural Resource Protection.

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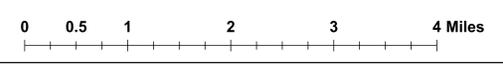


Legend

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Conceptual land link
- Existing land link
- Green corridor
- BicyclePA Route L
- Major Roads
- Water features
- Brandywine Creek Water Corridor and other Bodies of Water
- Minor corridor
- Hub
- Satellite Hub
- Major Corridor
- Gateway
- Node
- ▲ Creek Access
- ★ Destination Point

Concept Map

Brandywine Creek Greenway



Data sources:
 Roads, Railroads, Streams, Municipal boundaries
 Chester County GIS Department, 2010.
 Delaware County GIS Department, 2010.

BRANDYWINE CREEK
Greenway

BRANDYWINE CONSERVANCY

Map created: December 17, 2012
 Last revised: March 7, 2014

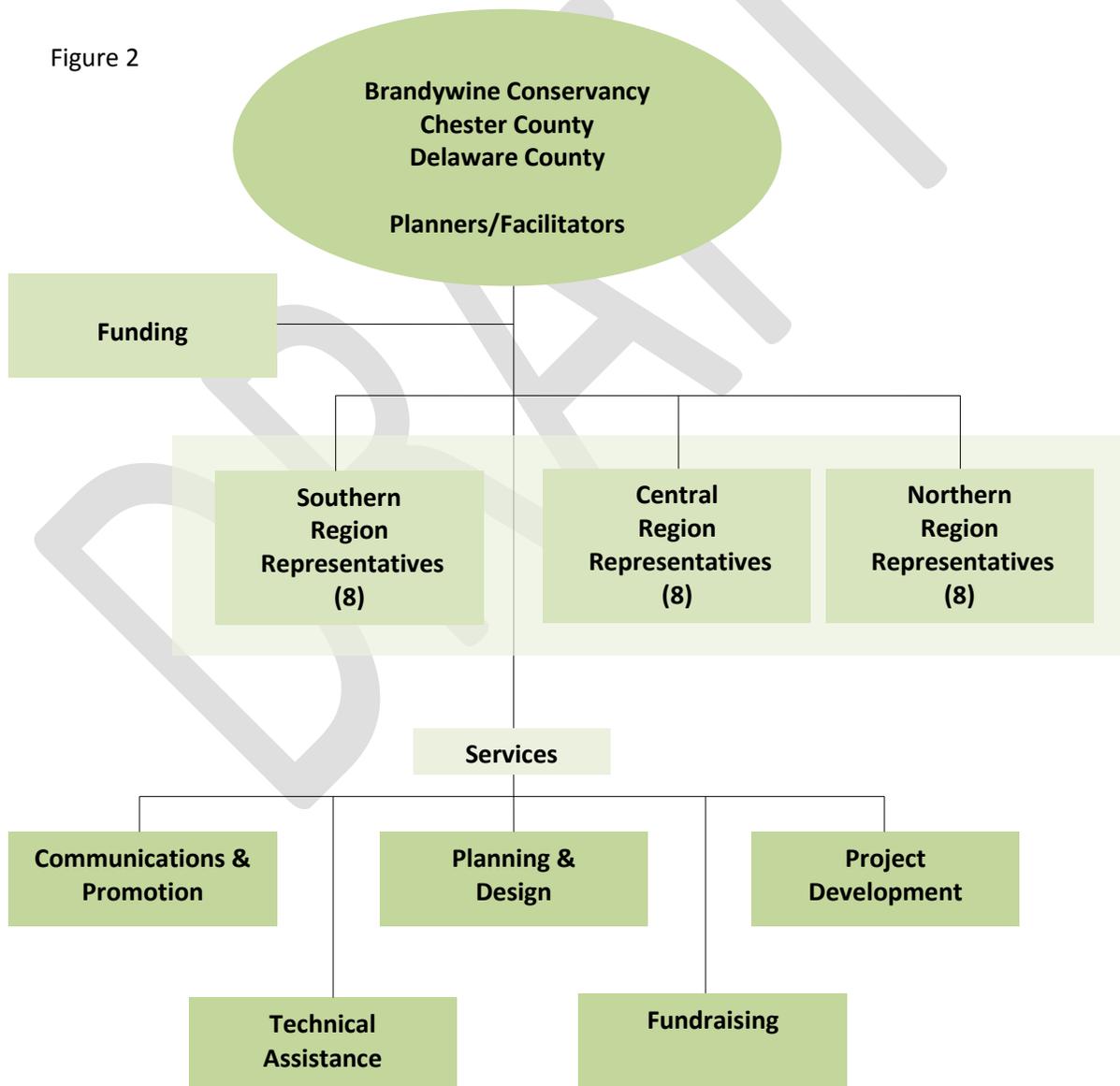


Organization and Management

Promotion, coordination, organization and ongoing management of Greenway initiatives will be critical for success. The Brandywine Conservancy is to resume its role as the primary planner/facilitator with support from Chester and Delaware Counties, as appropriate. This organizational structure was supported during a workshop early in the conceptual planning process. Municipalities supported having a neutral entity, such as a land trust, in the lead role. The Brandywine Conservancy has been actively involved with several municipalities in the greenway, has planners and conservation specialists on staff, and has demonstrated success in managing the greenway planning effort.

The organizational framework that will serve the greenway implementation effort is shown in Figure 2. It includes the Brandywine Conservancy, Chester County and Delaware County in a leadership role with 24 municipalities, organized by three regions, providing key input and guidance.

Figure 2



The greenway planners/facilitators will serve the three regions equally as inter-municipal coordinators and will perform the following functions:

- Engage in regular communications of news and events
- Provide technical assistance
- Provide project planning and design assistance
- Coordinate fundraising
- Assist with project development

Greenway plan implementation and management are expected to occur at the state, county, regional, and municipal levels. Key partners and stakeholders can contribute to greenway implementation by providing cash or in-kind services. Key partners will include:

- Pennsylvania Department of Transportation
- Pennsylvania Department of Conservation and Natural Resources
- Pennsylvania Department of Environmental Protection
- Delaware Valley Regional Planning Commission
- Chester County Parks and Recreation
- Chester County Open Space Department
- Chester County Planning Commission
- Chester County Water Resources Authority
- Chester County health care community
- Brandywine Valley Scenic Byway Commission
- Delaware Greenways, Inc.
- Local and regional land trusts
- Watershed organizations
- Special interest clubs (fishing, birding, hiking, cycling, etc.)
- Chester County Historic Preservation Network
- Brandywine Battlefield Task Force
- Chadds Ford Historical Society
- Local colleges and universities
- School districts
- Scouts
- Landowners

Successful implementation of the greenway will depend upon each municipal partner working cooperatively with facilitators and neighboring municipalities to implement critical elements.

Organization and Management Strategies

1. Municipalities sign a memorandum of understanding that recognizes the Brandywine Conservancy and Chester County as planners/facilitators for greenway initiatives.
2. Municipalities appoint one representative to participate in a multi-municipal Greenway Steering Committee.
 - a. The 24-member committee is to be re-appointed annually.
 - b. An annual meeting will be held to review organizational effectiveness for the past year as reported by the Regional Executive Committees.
 - c. The annual meeting is to be facilitated by the Brandywine Conservancy and County representatives.
3. Regional Executive Committees for the Southern, Central, and Northern Regions form as subcommittees of the Steering Committee. Their role is to:
 - Plan, design and implement joint venture/multi-municipal greenway projects
 - Coordinate operations and management of joint ventures
 - Hold quarterly meetings chaired by the Brandywine Conservancy, Chester County, or an appointed member of the Executive Committee
4. Each Executive Committee will measure organizational effectiveness as follows:
 - Establish a process to implement conservation and recreation projects described in Strategic Action Plan
 - Prepare annual work plans with measurable outcomes and key benchmarks

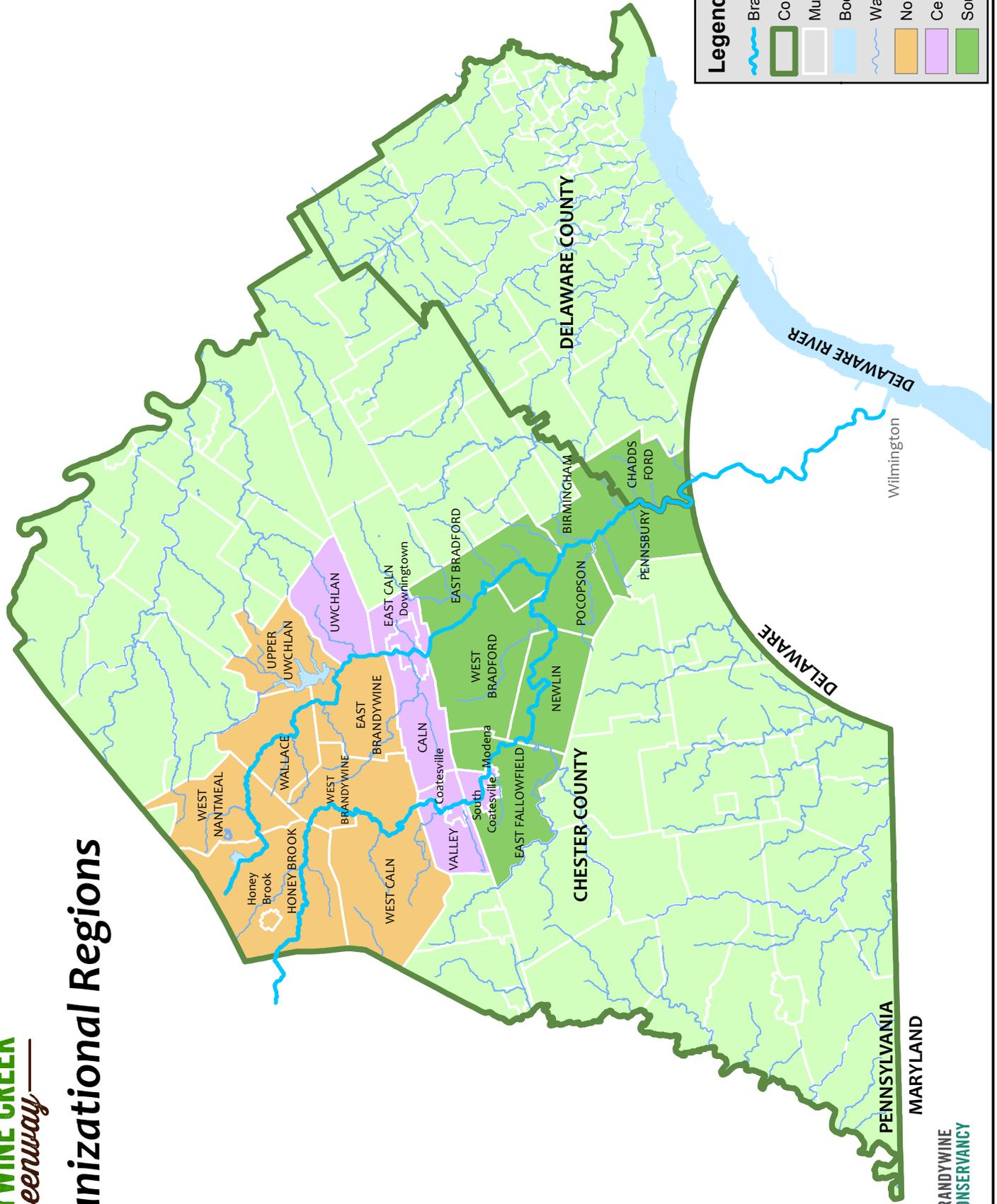
The following strategies are organized according to three themes created during the Greenway planning workshops. The themes are:

- Recreation and Transportation
- Natural Resource Conservation
- Cultural Resource Protection

These themes are broad in scope, but each strategy addresses one or more of the Greenway Goals and Objectives.



Organizational Regions



Legend

- Brandywine Creek
- County boundary
- Municipal boundary
- Bodies of water
- Water features
- Northern Region
- Central Region
- Southern Region



Recreation and Transportation

Most, but not all, of the twenty-four greenway municipalities view public open space, recreation and transportation alternatives as some of the most important functions of the greenway. Many Greenway communities envision more locations where public access to the Brandywine Creek is permitted. Key themes that are found in the objectives for Recreation and Transportation are to provide connections among greenway destinations, neighborhoods, and recreational lands. The greenway can be used as a means to provide safer routes for walking and bicycling, paddling, and horse-back riding along the entire length of the greenway from Chadds Ford to Honey Brook.

Recreation and Transportation Strategies

1. Ensure interconnectivity among neighborhoods and public lands, and enhance access to the Brandywine Creek for all ages and abilities by implementing the trail projects described in the Project Portfolios. Each greenway municipality is to take the lead on planned connector trails within its municipal borders, described in Municipal “To Do” Packets (Part 2 of 3).
2. Conduct a feasibility study for the Northern Struble Trail from the current terminus of the Struble Trail south of Marsh Creek State Park to Honey Brook Borough. Design and implement the trail for use by pedestrians, cyclists, and equestrians. Chester County is to lead this effort, also described in the Municipal “To Do” Packet for Chester County (Part 2 of 3).
3. Cultivate trail easements and/or lease agreements along the historic Brandywine Trail footpath. The immediate priority is to preserve the trail between the Mason Dixon Trail in Pennsbury Township and the paved Brandywine Trail at Route 322 in East Bradford Township. A longer term priority is to preserve the trail from Marsh Creek State Park to Ludwigs Corner in West Vincent Township. Brandywine Conservancy is to lead this effort, also described in the “To Do” Packet for the Brandywine Conservancy (Part 2 of 3).
4. Conduct a feasibility study for BicyclePA Route L to explore combinations of alternative routes, traffic calming, paved shoulders, bike lanes, share the road signage, and other improvements. A short term priority is the section between the paved Brandywine Trail in West Bradford Township and the Struble Trail in Downingtown. A second priority is the section between the PA/DE state line and the paved Brandywine Trail at Route 322 in East Bradford Township. The third priority is the section from the Northern Struble Trail up Route 82 towards East Nantmeal Township. Reassign BicyclePA Route L to follow the future Northern Struble Trail, where appropriate. Chester County is to lead this effort, also described in the Municipal “To Do” Packet for Chester County (Part 2 of 3).
5. Municipalities will work cooperatively with Chester County to implement recommendations of the Central Chester County Bicycle and Pedestrian Circulation Plan including the Chester Valley Trail. Chester County is to lead this effort.

6. Construct informational kiosks at designated gateways to the greenway. Content will include maps, cultural and historic interpretive displays, calendar of upcoming volunteer opportunities, and other relevant information. Include displays of the importance of conservation and best land management practices, and highlight the natural, recreational, and cultural features within the greenway corridor. Kiosks are to be maintained by the host municipality and are to be updated by the municipality and the Brandywine Conservancy quarterly. Each greenway municipality is to take the lead on planned gateway facilities within its municipal borders, described in Municipal “To Do” Packets (Part 2 of 3).
7. The Brandywine Conservancy will publish a color recreation map of existing trails, water trails, creek access, boat launch sites, and related facilities to be updated on a yearly basis and available for download from the BCG website.
8. The Brandywine Conservancy will coordinate with equestrian clubs to publish a separate map of equestrian facilities and trails to be updated on a yearly basis.
9. Each municipality will adopt an Official Map that identifies recreation and trail projects described in the Project Portfolios and that are consistent with its Comprehensive Plan.
10. Chester County will monitor the status of rail corridors where planned trails are shown on the Concept Map, and pursue fee ownership when corridors become inactive.

Natural Resource Conservation

Conservation of vital natural resources within the Brandywine watershed is a key ambition of the greenway. Beyond land conservation, the greenway aims to protect existing and restore former habitat areas such as riparian buffers, woodlands, wetlands, and aquatic habitat. Prime agricultural soils are important natural resources to be conserved and managed with best management practices. General themes in the Objectives for natural resource conservation are to protect, maintain and enhance vital natural resources, and to increase infiltration of stormwater. Increased stormwater infiltration will provide a range of benefits including: reducing stormwater runoff; reducing stream bank erosion and sedimentation of streams; reducing the cost of water treatment for drinking water supplies; and enhancing water quality in our streams.

The Chester County Planning Commission evaluated the natural resource protection ordinances of the 23 greenway municipalities in the County during the preparation of this Plan. The Brandywine Conservancy evaluated the ordinances of Chadds Ford Township in Delaware County. Their findings and recommendations are summarized in each municipal “To Do” Packet (Part 2) of this Plan. Model natural resource protection ordinances are provided for municipal use in the Implementation Tool Kit (Part 3) of this Plan.

Conservation priorities do vary among greenway municipalities depending upon whether they are agricultural, rural, or urbanized. For example, Northern Region municipalities may choose to focus on agricultural resources, while Central Region municipalities that are more urbanized may choose to focus on remnant riparian corridors. No matter what the priorities may be, conservation efforts of any kind are often opportunistic as land owners come forward to voluntarily conserve, protect or enhance the resources on their land or as developers submit preliminary land development plans. In this context, it is important to determine which parcels of land have the greatest conservation potential in order to maximize any public or private investment made. The Greenway’s natural resources are mapped in the Implementation Tool Kit (Part 3 of 3) according to three conservation themes:

- Natural Resources (habitat)
- Agricultural Resources (prime ag. soils)
- Water Resources (headwaters, impaired streams)

Natural Resource Conservation Strategies

1. Update the municipal SALDO and ZO to include the following regulatory tools, as appropriate, to help conserve sensitive natural resources and open space: Sketch Plan; Conservation Design; Existing Resources and Site Analysis Plan; Public Parkland and Dedication; Fee in Lieu; Official Map; and Transferrable Development Rights. General descriptions of these regulatory tools are provided in the Implementation Tool Kit (Part 3 of 3). Each greenway municipality is to take the lead on planned gateway facilities within its municipal borders, described in Municipal “To Do” Packets, Part 2 of 3.
2. Adopt an Official Map that depicts properties where public ownership is desired, as recommended in the municipal Comprehensive Plan. Each greenway municipality is to take the lead.

3. Municipalities and local land trusts work cooperatively to identify priority parcels of 10-acres or more having 3 or 4 critical natural resources and cultivate conservation easements on those lands. High priority is placed on unprotected parcels adjacent to protected lands and parcels with frontage on the main stem, East Branch, or West Branch of the Brandywine Creek. See Natural Resources Summary Maps in the Implementation Tool Kit. The Brandywine Conservancy will lead this strategy.
4. Municipalities, Chester County and local land trusts work cooperatively to identify priority farm parcels of 10-acres or greater having at least 50% prime agricultural soils coverage, and cultivate agricultural easements on those farms. Priority farms are located adjacent to existing agricultural easements within the Agrarian Landscape identified in Chester County's Landscapes 2. The Brandywine Conservancy and Chester County Open Space Department will lead this strategy.
5. Municipalities, Chester County, local land trusts and funding partners work cooperatively with landowners to identify priority conservation land for public ownership and assemble funding required to purchase priority conservation lands through joint ventures and leveraging funds. The Brandywine Conservancy and Chester County Open Space Department will lead this strategy.
6. Municipalities and local land trusts work cooperatively with landowners to design and implement best management practices (BMPs) on publicly-owned lands and privately-preserved lands. Priority areas include the headwaters of the Brandywine and impaired stream sub-watersheds. Examples of BMPs include fencing off cattle from streams and reforestation of steep slopes. The Brandywine Conservancy will lead this strategy.
7. Municipalities and local land trusts work cooperatively to plant trees on privately-preserved lands and publicly-owned land. Each municipality sets a goal for the number of trees to be planted each year in an effort to reduce stormwater runoff and mitigate flooding downstream. The Brandywine Conservancy will lead this strategy.

Cultural Resource Protection

The many historic buildings, historic districts, cultural attractions, and scenic landscapes located throughout the Brandywine Valley contribute greatly to its unique sense of place and provide for value-added recreation. Nationally- and municipally-designated historic resources will be linked into the greenway open space and trail network, and the story of the historic and cultural resources in the Brandywine Valley will be told to visitors. State- and locally-designated scenic resources will be buffered from new development. Cities and boroughs will be promoted as gateways to the greenway to attract visitors and foster economic activity in urbanized areas.

The Greenway's cultural resources are mapped in the Implementation Tool Kit on the Cultural Resources Summary map (Part 3 of 3) and on the Cultural Resources Inventory map in the Appendix (Part 3 of 3).

Cultural Resource Protection Strategies

1. Municipalities will adopt a historic resource protection ordinance or update existing ordinances to include provisions for the establishment of historic districts, protection of historic structures, and conservation of historic landscapes. The Brandywine Conservancy and Chester County will lead this strategy.
2. Municipalities, Chester County, and the Chester County Historic Preservation Network will place historic plaques in municipally-designated historic districts, near historic structures listed on the National Register of Historic Places, and near locally-designated resources. Each Greenway municipality will play a lead role within its own municipal borders.
3. Municipalities, Chester County, the Chester County Historic Preservation Network, and landowners work cooperatively to seek National Register Determination of Eligibility for historic structures. Landowners and municipalities will lead DOE's within their municipal borders.
4. The BCG website will be augmented by adding links to websites that highlight historic and cultural features of the Brandywine Valley. For example, provide a link to the Brandywine Battlefield Preservation Plan. The Brandywine Conservancy will lead.
5. Municipalities work with the Chester County Heritage Preservation Network and Chester County will research locally significant historic features within ¼ mile of gateway and craft cultural and historic panels unique to each gateway kiosk. Chester County will lead this effort.
6. Update the municipal SALDO and ZO to include the following regulatory tools, as appropriate, to help conserve important historic and cultural resources: Sketch Plan; Conservation Design; Existing Resources and Site Analysis Plan; Public Parkland and Dedication; Fee in Lieu; Official Map; and Transferrable Development Rights. General descriptions of these regulatory tools are provided in the Implementation Tool Kit (Part 3 of 3). Each greenway municipality is to take the lead.

7. Municipalities will work collaboratively with the Brandywine Valley Scenic Byway Commission to implement the Management Plan for the Brandywine Valley Scenic Byway.
8. Municipalities will work collaboratively with the Chester County Planning Commission to implement the Brandywine Battlefield Preservation Plan, December 2013.
9. Gateways to the regional trail network will be established in each of the urbanized hubs including Honey Brook Borough, Downingtown Borough, City of Coatesville, South Coatesville Borough, and Modena Borough. Gateways will include, at a minimum, one kiosk with maps and interpretive displays, parking facilities, public drinking water, public restrooms, and access (physical or visual) to the Brandywine Creek.
10. Municipalities will add a link to the Brandywine Creek Greenway website on their web page. Urbanized municipalities will promote themselves as “trail towns” and gateways to the Greenway.
11. The BCG website will be updated with featured links to urbanized gateway communities. Approved sponsors will be able to advertise their business on the greenway website for an annual donation or fee. The Brandywine Conservancy will lead.

Strategies and Priorities Table

Strategies	Short-term	Inter-mediate	Long-term	Ongoing
Organization and Management				
1. Municipalities sign an MOU	X			
2. Municipalities appoint one representative	X			
3. Form regional executive committees	X			
4. Measures for organizational effectiveness	X			
Recreation and Transportation				
1. Implement trail projects in Portfolios	X	X	X	
2. Northern Struble Trail Feasibility Study	X			
3. Cultivate trail easements along Brandywine Trail	X			
4. Bicycle Route L Feasibility Study	X			
5. Implement CCBPCP	X	X	X	
6. Install gateway kiosks	X			
7. Publish trail map				X
8. Publish equestrian trail map				X
9. Official Map adoption				X
10. Abandoned rail monitoring				X
Natural Resource Conservation				
1. Update ordinances	X			
2. Official Map adoption	X			
3. Identify priority lands for conservation easements				X
4. Identify priority lands for ag. preservation				X
5. Identify priority lands for fee interest				X
6. Implement BMPs				X
7. Plant trees				X
Cultural Resource Protection				
1. Adopt Historic Preservation ordinance/districts		X		
2. Place historic signage		X		
3. Seek NR DOE				X
4. Website links to historic and cultural websites				X
5. Historic interpretive panels		X		
6. Update SALDO and ZO	X			
7. Collaborate with BVSBC				X
8. Collaborate with CCPC re. BBPP				X
9. Establish gateways	X			
10. Provide links to BCG website	X			
11. Update website				X