

**Legend**

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Major Roads
- Water features
- Brandywine Creek Water Corridor and other Bodies of Water
- Agrarian Landscapes (Landscapes 2)
- Protected Lands

**Number of agricultural resources (max. = 3)\***

- 1
- 2
- 3

\*Resources counted include:

- Parcels with 50-75% prime agricultural soils
- Parcels with 75% or greater prime agricultural soils
- Adjacency to lands with conservation/agricultural easements

**\*DRAFT\* Agricultural Resources Summary Map**

## Brandywine Creek Greenway

00.512345

Miles

**Data sources:**

- Roads, Streams, Municipal boundaries
- Protected lands

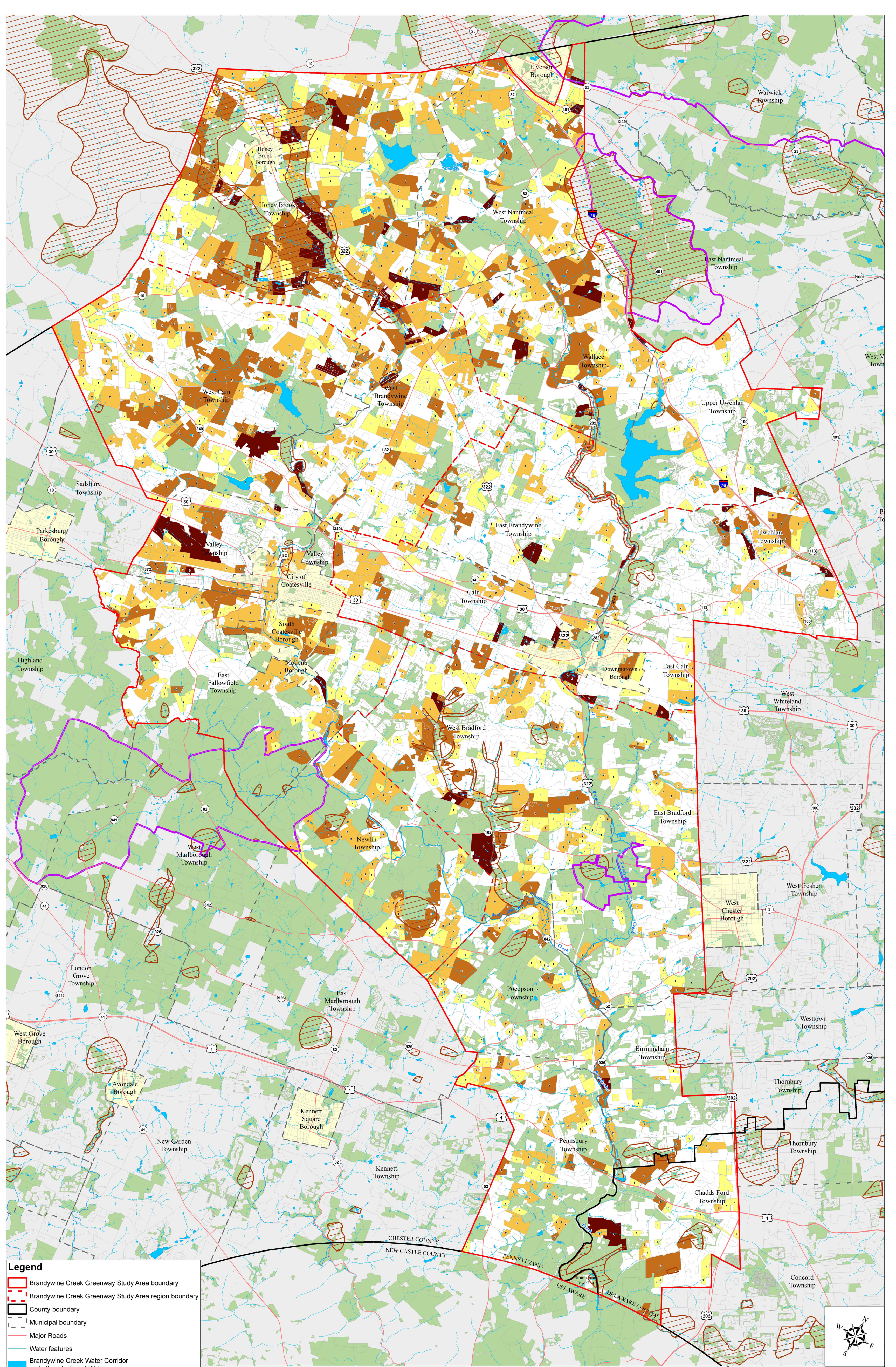
- Chester County GIS Department, 2012.
- Delaware County GIS Department, 2012.
- Chester County Planning Commission, 2013.
- Delaware County GIS Department, 2011.

Map created: July 24, 2013

BRANDYWINE CREEK Greenway

BRANDYWINE CONSERVANCY





**Legend**

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Major Roads
- Water features
- Brandywine Creek Water Corridor and other Bodies of Water
- PNDI Sites
- Important Bird Areas (IBA)
- Protected Lands

**Number of Natural Resources (max. = 4)\***

- 1
- 2
- 3
- 4

\*Resources counted include:

- Wetlands
- Woodlands
- Woodland Interior
- Parcels with 1 ac. or greater Forested Riparian Buffer

**\*DRAFT\* Natural Resources Summary Map \*DRAFT\***

## Brandywine Creek Greenway



**Data sources:**

- Roads, Streams, Municipal boundaries
- Protected lands

-Chester County GIS Department, 2012.  
-Delaware County GIS Department, 2012.  
-Chester County Planning Commission, 2013.  
-Delaware County GIS Department, 2011.

**BRANDYWINE CREEK Greenway**  
  
**BRANDYWINE CONSERVANCY**

Map created: July 24, 2013



**Chester County's Historic Features Resource Map**  
**(to be included in the next draft)**

DRAFT



# **Restoration Opportunities (2 maps)**



## Restoration Opportunities

The Restoration Opportunities maps are to be used to identify projects that focus on enhancing water quality in the Brandywine Creek and its tributaries, and improving woodland habitat for wildlife. Continual efforts to restore degraded streams and woodlands on private and public lands are to be undertaken as opportunities/funding arise and on an as-needed basis. A detailed site inventory and analysis is required in every project to determine the true extent of any opportunities to restore or enhance woodlands or water resources. A variety of non-regulatory tools for resource conservation are available to landowners and municipalities and can be found at the beginning of this document. In many cases, reforestation projects will be an effective tool to improve water quality, reduce storm water volume, and provide new woodland habitat for wildlife. General watershed and woodland restoration opportunities are:

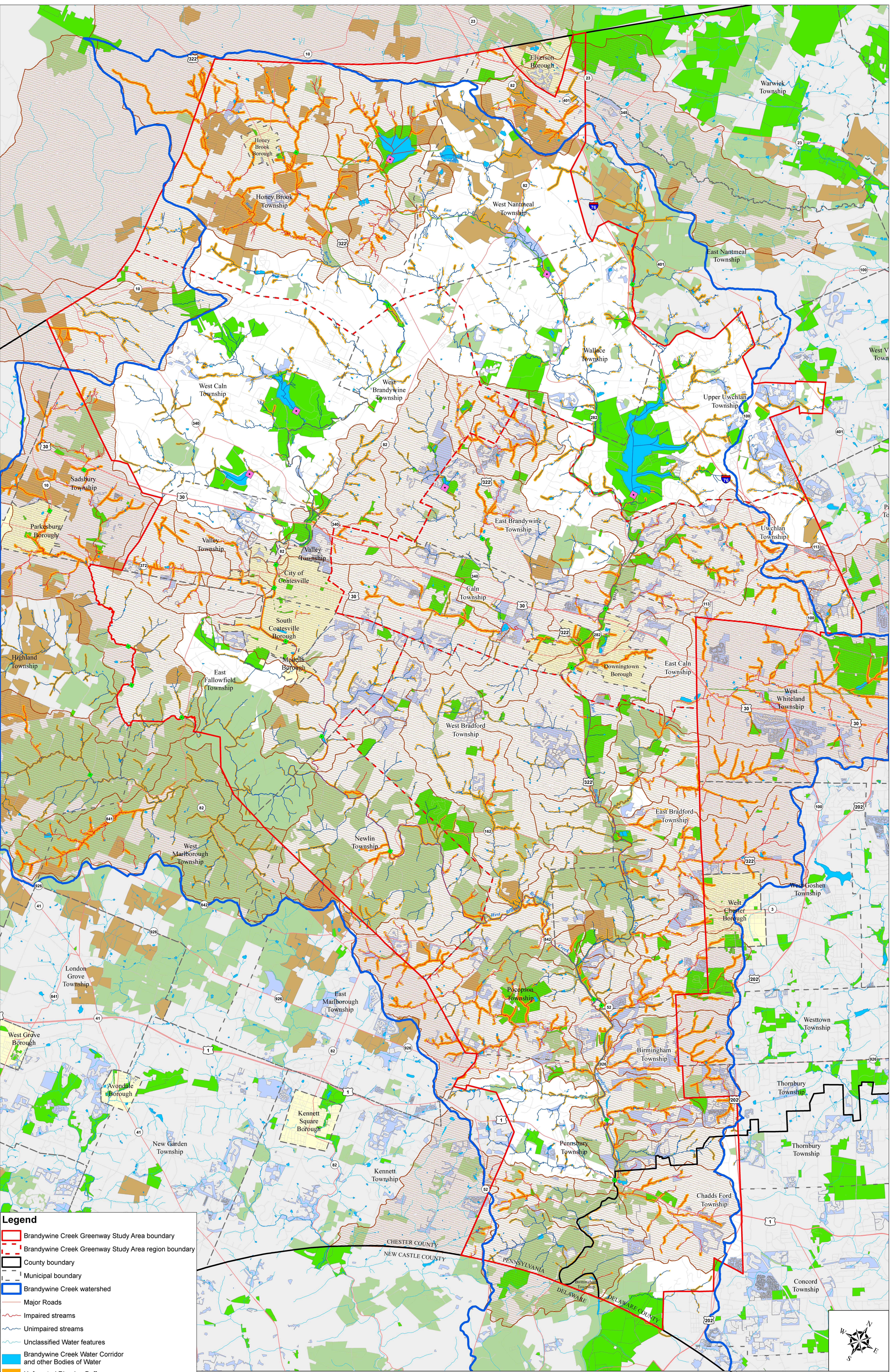
### *Water Restoration Opportunities*

- Dams – removal of small dams where appropriate/feasible to reduce sedimentation and lower water temperature, to be addressed by municipalities in partnership with appropriate owners and state agencies
- Impaired Streams – stream bank stabilization through reforestation, stormwater best management practices, green infrastructure on private and public lands
- Watersheds with Impaired Streams - stream bank stabilization through reforestation, stormwater best management practices, green infrastructure on private and public lands
- Unforested riparian buffers – reforestation of stream banks, minimum 100' width

### *Habitat Restoration Opportunities*

- Unforested steep slopes 25% and greater (data based upon slopes derived from the NRCS soils data) – reforestation not only helps to stabilize soils, prevent erosion and sedimentation of streams, it also provides future habitat for a number of insects and mammals
- Unforested riparian buffers – reforestation of riparian buffers creates safe travel corridors where wildlife can find shelter as it moves from one island refuge to another, minimum 100' width

Woodland Interiors are woodlands with a minimum distance of 300' to the nearest edge. They are minimum 1 acre and greater, depending upon shape, and are critical for providing special breeding conditions for a number of species of birds and other small mammals. Reforestation of gaps between woodland fragments in upland areas should be implemented in order to augment woodlands and ensure in the long term availability of woodland interior habitat.



**Legend**

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Brandywine Creek watershed
- Major Roads
- Impaired streams
- Unimpaired streams
- Unclassified Water features
- Brandywine Creek Water Corridor and other Bodies of Water
- Unforested Riparian Buffer
- Watersheds with impaired streams
- Chester County agricultural easements
- Private lands eased or owned by land trusts
- Other protected lands (HOA, etc.)
- Public lands(Federal, state, county, municipal)
- Dams within Brandywine Watershed**
- Large dams
- Dams

# DRAFT\* Water Quality Restoration Opportunities Map

## Brandywine Creek Greenway



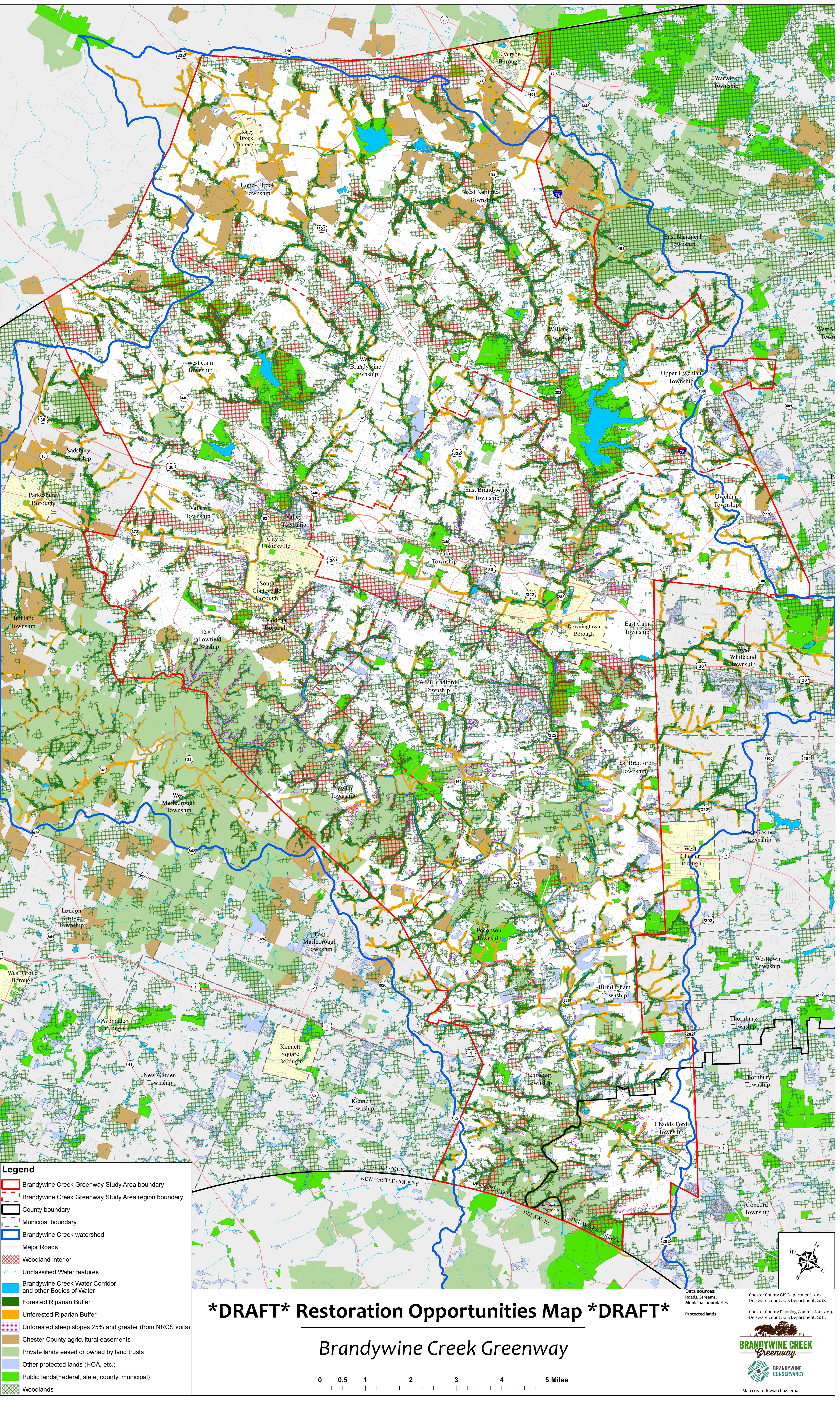
**Data sources:**  
Roads, Streams, Municipal boundaries  
Protected lands

-Chester County GIS Department, 2012.  
-Delaware County GIS Department, 2012.  
-Chester County Planning Commission, 2013.  
-Delaware County GIS Department, 2011.

**BRANDYWINE CREEK Greenway**

**BRANDYWINE CONSERVANCY**

Map created: March 14, 2014



**Legend**

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Brandywine Creek watershed
- Major Roads
- Woodland interior
- Unclassified Water features
- Brandywine Creek Water Corridor and other Bodies of Water
- Forested Riparian Buffer
- Unforested Riparian Buffer
- Unforested steep slopes 25% and greater (from NRCS soils)
- Chester County agricultural easements
- Private lands eased or owned by land trusts
- Other protected lands (HOA, etc.)
- Public lands(Federal, state, county, municipal)
- Woodlands

**\*DRAFT\* Restoration Opportunities Map \*DRAFT\***

**Brandywine Creek Greenway**

0 0.5 1 2 3 4 5 Miles

**Data sources:**  
Roads, Streams, Municipal boundaries  
Protected lands

Chester County GIS Department, 2012.  
Delaware County GIS Department, 2012.  
Chester County Planning Commission, 2013.  
Delaware County GIS Department, 2011.

**BRANDYWINE CREEK Greenway**

**BRANDYWINE CONSERVANCY**

Map created: March 18, 2014

## Project List and Priorities

The following table of Projects and Priorities lists all projects described in the 24 Municipal “To Do” Packets. Each municipal project is identified with a project code that reflects the name of the municipality that acts as the primary on the project.

<b>Project Code</b>	<b>Municipality/Agency</b>
BC	Brandywine Conservancy
BSC	Borough of South Coatesville
BT	Birmingham Township
CC	Chester County
CFT	Chadds Ford Township
CT	Caln Township
CofC	City of Coatesville
DB	Downingtown Borough
DCNR	PA Department of Conservation and Natural Resources
DelCo	Delaware County
EbrT	East Bradford Township
EBwT	East Brandywine Township
ECT	East Caln Township
EFT	East Fallowfield Township
HBB	Honey Brook Borough
HBT	Honey Brook Township
MB	Modena Borough
NT	Newlin Township
PENN	Pennsbury Township
PT	Pocopson Township
UUT	Upper Uwchlan Township
UW	Uwchlan Township
VT	Valley Township
WBF	West Bradford Township
WBW	West Brandywine Township
WC	West Caln
WNT	West Nantmeal Township
WT	Wallace Township

The projects are arranged alphabetically according to their project code number. They are also categorized as short-term (1-5 years), intermediate (5-10 years), long-term ( 10+ years), and ongoing. Ongoing projects require continual effort or are undertaken on an as-needed basis. Refer to your municipal “To Do” packet for more detailed information about your municipality’s specific projects, key partners, project focus and location, accomplishments to date, and recommended next steps.

Projects	Short-term	Intermediate	Long-term	Ongoing
BC 1 Historic Brandywine Trail	X			
BC 2 North Brandywine Trail			X	
BSC 1 Overhill Road Trail			X	
BSC 2 Mill Trail Section 2	X			
BSC 3 Mill Trail Section 3	X			
BSC 4 Mill Trail Section 4	X			
BSC 5 Mill Trail Section 5		X		
BSC 6 Mill Trail Section 6		X		
BSC 7 Mill Trail Section 7		X		
BSC 8 Birch Street to Upper Gap Road			X	
BSC 9 Upper Gap Road Recreation Center			X	
BSC 10 Dennis Run Conservation				X
BSC 11 Upper Gap Trail			X	
BT 1 Sandy Hollow to Birmingham Hill Trail	X			
BT 2 Brinton Run Green Corridor				X
BT 3 Wylie Run Green Corridor				X
BT 4 Renwick Run Green Corridor				X
BT 5 Radley run Green Corridor				X
CC 1 Bike Route L Safety Enhancements	X			
CC 2 Northern Struble Trail	X			
CC 3 Elverson Trail			X	
CC 4 Welsh Mountain Trail			X	
CC 5 Chester Valley Trail			X	
CC 6 Brandywine Trail to Struble Trail Link	X			
CC 7 Barneston Creek Access Enhancements	X			
CC 8 Reeds Road Creek Access			X	
CC 9 Chambers Lake Trail			X	
CFT 1 Chadds Ford Gateway Enhancements	X			
CFT 2 Walkable Chadds Ford		X		
CFT 3 Village Park		X		
CFT 4 Harvey Run Green Corridor				X
CT 1 Lincoln Highway Business District Enhancements	X			
CT 2 Valley Run Minor Corridor	X			
CT 3 Lloyd Park to Downingtown Trail Connector		X		
CT 4 GO Carlson Trail Connections	X			
CT 5 North Bailey Road Trail			X	
CT 6 Valley Run Municipal Park Enhancements	X			
CT 7 South Bailey Road Trail			X	
CT 8 Beaver Creek Minor Corridor				X
CofC 1 Downtown Revitalization	X			
CofC 2 Gateway Park Improvements		X		
CofC 3 West Branch Brandywine Trail		X		
CofC 4 South First Avenue Improvements	X			
DB 1 Parke Run Conservation Initiative				X

Projects	Short-term	Inter-mediate	Long-term	Ongoing
DB 2 Beaver Creek Corridor	X			
DB 3 Kerr Park Enhancements	X			
DB 4 Downingtown Gateway Enhancements	X			
DB 5 Pennsylvania Avenue Bike Route	X			
DCNR 1 Marsh Creek Lake Trail			X	
DelCo 1 Route 1 Bike Safety Enhancements	X			
DelCo 2 Octorara Multi-use Trail			X	
EBrT 1 County Seat Corridor Trail			X	
EBrT 2 Taylor Run Trail			X	
EBrT 3 Ingrams Mill to Stroud Connector	X			
EBrT4 Shaws Bridge park Improvements	X			
EBrT 5 Plum Run Corridor Enhancements				X
EBrT 6 Stroud Preserve Gateway		X		
EBrT 7 Gibsons Bridge Gateway		X		
EBrT 8 Ingrams Mill Park Enhancements	X			
EBrT 9 Paradise Farm Camps Improvements			X	
EBrT 10 Historic Brandywine Trail	X			
EBrT 11 Valley Creek Corridor Enhancements				X
EBrT 12 M John Johnson Nature Center to Ingrams Mill	X			
EBrT 13 Sugars Bridge Master Plan			X	
EBwT 1 Lyndell Gateway-fee interest			X	
EBwT 2 Lyndell Gateway- site design and development			X	
EBwT 3 Wissahickon Spring Water Co. Access	X			
EBwT 4 Dowlin Forge Road Creek Access	X			
EBwT 5 Shady Oaks Campground Fee Interest	X			
EBwT 6 Shady Oaks Campground Creek Access	X			
EBwT 7 Shady Oaks Bridge			X	
EBwT 8 Beaver Creek Green Corridor	X			X
EBwT 9 Dowlin Forge Road Trail	X			
EBwT 10 Whittaker Memorial Park Bridge			X	
EBwT 11 Culbertson Run Trail			X	
EBwT 12 Beaver Creek Headwaters Trail			X	
ECT 1 East Branch Brandywine Stewardship Plan	X			X
ECT 2 Valley Creek Corridor Trail			X	
ECT 3 Ebenezer Corridor Trail	X			
ECT 4 Ludwig's Run Green Corridor				X
EFT 1 Dennis Run Green Corridor			X	
EFT 2 Misty Patch Loop Trail	X			
EFT 3 Lauria Brothers- Public Access	X			
EFT 4 Mortonville Creek Access Enhancements	X			
EFT 5 Buck Run Trail			X	
EFT 6 Hayes-Clark Bridge Creek Access Enhancements	X			
EFT 7 Buck Run Conservation	X			
EFT 8 Sucker Run Woodland Conservation	X			

Projects	Short-term	Intermediate	Long-term	Ongoing
EFT 9 West Branch Brandywine Trail			X	
HBB 1 Headwaters Green Corridor	X			
HBB 2 Umble Park Connector	X			
HBB 3 Downtown and Streetscape Revitalization	X			
HBB 4 Borough Park Improvements			X	
HBT 1 Welsh Mountains Conservation Initiative	X			
HBT 2 Two Log Run Green Corridor	X			
HBT 3 Honey Brook Branch Green Corridor	X			
HBT 4 West Branch Headwaters Green Corridor	X			
HBT 5 West Branch Brandywine Trail	X			
HBT 6 Indian Run Green Corridor				X
MB 1 Lauria Brothers Public Access	X			
MB 2 Lauria Brothers Gateway Improvements			X	
MB 3 Dennis Run Conservation				X
MB 4 Mortonville Road Trail			X	
NT 1 Brandywine Drive Creek Access	X			
NT 2 Pocopson Creek Greenway Corridor				X
Penn 1 Mason Dixon Trail	X			
Penn 2 Share the Road Trails			X	
Penn 3 Johnson Woods to Brandywine Trail	X			
Penn 4 Bennetts Run Green Corridor			X	
Penn 5 Ring Run Green Corridor			X	
Penn 6 Fairville Road Green Corridor			X	
PT 1 Pocopson Park Gateway	X			
PT 2 Pocopson Park Gateway to West Creek Road Trail	X			
PT 3 BVA to West Creek Road Trail			X	
PT 4 Northbrook Trail			X	
PT 5 West Creek Road Trail	X			
PT 6 Lenape Forge Road and Canoe Launch	X			
PT 7 Pocopson Creek Green Corridor			X	
UUT 1 Eagle Trailhead	X			
UUT 2 Park Road Multi-Use Trail	X			
UUT 3 Little Conestoga Trail			X	
UUT 4 Dorlans Mill Creek Access	X			
UUT 5 Blackhorse Creek Minor Corridor				
UUT 6 Marsh Creek Green Corridor	X			
UUT 7 Eagle Village Enhancements			X	
UUT 8 Lyndell Road Pull-off				
UW 1 Ludwig's Run Green Corridor				X
UW 2 Shamona Creek Minor Corridor				X
VT 1 Business Route 30 Corridor Enhancements			X	
VT 2 West Branch Brandywine Trail	X			
VT 3 Country Club Green Corridor	X			
VT 4 Sucker Run Green Corridor	X			

Projects	Short-term	Inter-mediate	Long-term	Ongoing
VT 5 Rock Run Green Corridor	X			X
WBF 1 East Branch Brandywine Trail	X			
WBF 2 Telegraph Road Minor Corridor			X	
WBF 3 Orchard Loop Trail			X	
WBF 4 Sawmill Run Corridor			X	
WBF 5 Broad Run Minor Corridor	X			
WBF 6 Sycamore Loop Trail			X	
WBF 7 Tattersall/Embreeville Loop Trail			X	
WBF 8 Romansville/Lone Eagle/ Stock Grange Loop Trail			X	
WBF 9 Broad Run to Northbrook Link			X	
WBF 10 Brandywine Meadows Gateway	X			
WBF 11 Camp Linden Trail			X	
WBW 1 West Branch Brandywine Trail	X			
WBW 2 Icedale Gateway	X			
WBW 3 Route 82 Trail	X			
WBW 4 Indian Run Trail			X	
WBW 5 The Ridings Trail			X	
WBW 6A Beaver Creek Green Corridor North			X	
WBW 6B Beaver Creek Green Corridor South			X	
WBW 7 West Branch Indian Creek Run Green Corridor	X			
WC 1 Rock Run Green Corridor	X			X
WC 2 Birch Run Green Corridor	X			X
WNT 1 Perkins Run Green Corridor			X	X
WNT 2 Indian Run Green Corridors			X	X
WNT 3 Marsh Creek Green Corridor			X	X
WT 1 Valhalla Loop Trail			X	
WT 2 Burgess Park Water Access			X	
WT 3 Glenmoore Gateway Enhancements	X			
WT 4 North Branch Indian Run Corridor	X			
WT 5 West Branch Indian Run Corridor	X			
WT 6 Rose Pointe Green Corridor	X			
WT 7 Marsh Creek Green Corridor				



# Model Ordinances

## **Natural Resource Protection Standards**

This section is reserved for model natural resource protection standards offered by the Chester County Planning Commission, and will also include options to enhance these basic standards as offered by the Brandywine Conservancy. Basic and optional standards will address floodplain protection, steep slope protection, woodland and specimen tree protection, timber harvesting, riparian buffer protection, and wetland and wetland margin protection. Greenway municipalities may wish to supplement existing zoning or subdivision and land development ordinances with these standards to improve protection of their valuable natural resources. These standards will be included in the next draft of the Strategic Action Plan.



# Appendix

## Inventory Maps

## Sources of Funding

### Federal Programs

Federal programs are complex and generally require Metropolitan Planning Organization (MPO) support, such as the Delaware Valley Planning Commission (DVRPC). Contact DVRPC for more information and for grant application guidance.

#### NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)

<http://www.fhwa.dot.gov/map21/guidance/guidenhpp.cfm>

*Who is eligible to apply?*

States and MPOs.

*What types of projects are funded?*

Projects must be part of the National Highway System and be on the Transportation Improvement Program (TIP) of our local MPO, the Delaware Valley Regional Planning Commission.

#### CONGESTION MITIGATION AND AIR QUALITY (CMAQ)

<http://www.fhwa.dot.gov/map21/guidance/guidecmaq.cfm>

*Who is eligible to apply?*

States and MPOs.

*What types of projects are funded?*

Projects must be part of the MPO's transportation plan and be on the TIP. Specific project types such as: non-recreational bicycle transportation and pedestrian improvements that provide a reduction in single-occupant vehicle travel.

#### SURFACE TRANSPORTATION PROGRAM (STP)

<http://www.fhwa.dot.gov/map21/guidance/guidestp.cfm>

*Who is eligible to apply?*

States and MPOs.

*What types of projects are funded?*

Environmental restoration and pollution abatement in accordance with 23 U.S.C. 328.

Control of noxious weeds and aquatic noxious weeds and establishment of native species in accordance with 23 U.S.C. 329.

Recreational trails projects eligible for funding under 23 U.S.C. 206. Not subject to Location of Project requirement in section 133(c).

## TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

<http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>

### *Who is eligible to apply?*

States and MPOs.

### *What types of projects are funded?*

The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

## State Programs

The Pennsylvania Growing Greener Coalition's Guide to Finding the Green was first published in March 2014 and is available online at <http://pagrowinggreener.org/wp-content/uploads/2014/03/Finding-the-Green-LR.pdf>. Its current version is included in the Appendix. The Guide contains a thorough listing of state funding programs for conservation, preservation and recreation projects, including the more recent funding made available from Act 13 of 2012. In addition to a list of specific grant opportunities, you'll find tips on how to apply and where to go for more information.

The following are two examples of successful state programs in this region that are also described in the Guide to Finding the Green.

## COMMUNITY RECREATION AND CONSERVATION PROGRAM—COMMUNITY CONSERVATION PARTNERSHIP PROGRAM (C2P2)

<http://www.dcnr.state.pa.us/brc/grants/c2p2programguidance/index.htm>

### *Who is eligible to apply?*

Municipalities; COGs; Conservation Districts; land trusts; school districts; colleges and universities; non-profit organizations working on rivers, conservation, trails, etc.; for profit entities; housing and redevelopment authorities; and designated heritage areas.

### *What types of projects are funded?*

Development, land acquisition, planning, partnerships, and trail maintenance.

### *Is there a maximum amount?*

The maximum amount varies by project type.

*Is a match required?*

Match amount varies between 10 and 50%, depending on project type and ultimate funding source.

*How to apply*

Through the DCNR website:

<http://www.dcnr.state.pa.us/brc/grants/c2p2programguidance/index.htm>

*When is the application period?*

The current cycle's deadline is April 16, 2014.

**ACT 13 (MARCELLUS SHALE IMPACT FEE)—GREENWAYS, TRAILS, AND RECREATION PROGRAM (GTRP)**

<http://www.newpa.com/find-and-apply-for-funding/funding-and-program-finder/greenways-trails-and-recreation-program-gtrp>

*Who is eligible to apply?*

Municipalities, COGs, non-profit organizations, colleges and universities, watershed organizations, for-profit businesses.

*What types of projects are funded?*

Rehabilitation and development of public parks and recreation areas, greenways and trails, and river conservation.

*Is there a maximum amount?*

\$250,000.

*Is a match required?*

Most projects require a 50% match. Applications from municipalities with a population of fewer than 5,000 require a 20% match.

*How to apply*

Using DCED's Single Application for Assistance: <http://www.newpa.com/find-and-apply-for-funding/apply-for-programs-funding>

*When is the application period?*

The most recent application deadline was July 31, 2013.

## Regional Programs

### DELAWARE VALLEY REGIONAL PLANNING COMMISSION (DVRPC) – TRANSPORTATION AND COMMUNITY DEVELOPMENT INITIATIVE (TCDI)

#### *Who is eligible to apply?*

TCDI grants are available to all municipal and county governments within the DVRPC region. TCDI applications must be made by the local government or county.

#### *What types of projects are funded?*

TCDI grants support planning, ordinances, design, preliminary engineering, market analyses, feasibility studies or capacity building activities that lead to public or private sector investment for smart growth. TCDI is an opportunity to undertake the preliminary planning or analyses needed to support specific transportation system improvements or enhancements, new ordinance language, and/or new or different programmatic efforts that will spur local revitalization and smart development.

#### *Is there a maximum amount?*

Municipalities may apply for a maximum of \$100,000 in TCDI funds for any single project. County governments may also apply for individual projects or on behalf of several communities in the case of a multi-municipal effort. Projects involving two or more municipalities may apply for a maximum of \$175,000 in TCDI funds.

#### *Is a match required?*

20% (of total project cost) in-kind, cash or some combination

#### *How to apply*

Visit this page for guidance: <http://www.dvrpc.org/TCDI/>

#### *When is the application period?*

Applications and attachments electronically due to DVRPC in May of each calendar year.

### CHESTER COUNTY DEPARTMENT OF OPEN SPACE PRESERVATION—MUNICIPAL GRANTS PROGRAM

#### *Who is eligible to apply?*

All 73 municipalities in Chester County.

#### *What types of projects are funded?*

- Acquisition Grants reimburse a maximum of 50% of the approved cost to buy land, conservation or trail easements. In the event that an extraordinary conservation opportunity presents itself, the County will consider requests in excess of \$500,000 on a case-by-case basis for acquisition grants. Requests for grants of \$500,000 or more must provide a compelling justification for the request, along with a map and