



Implementation Tool Kit

Part 3 of 3



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BCG Partnership – The Enablers

Recent and Current Funders

- The William Penn Foundation
- Pennsylvania Department of Conservation and Natural Resources
- Chester County Planning Commission
- The George and Miriam Martin Foundation

Planning team

- Brandywine Conservancy
- Chester County Planning Commission
- Delaware County Planning Department

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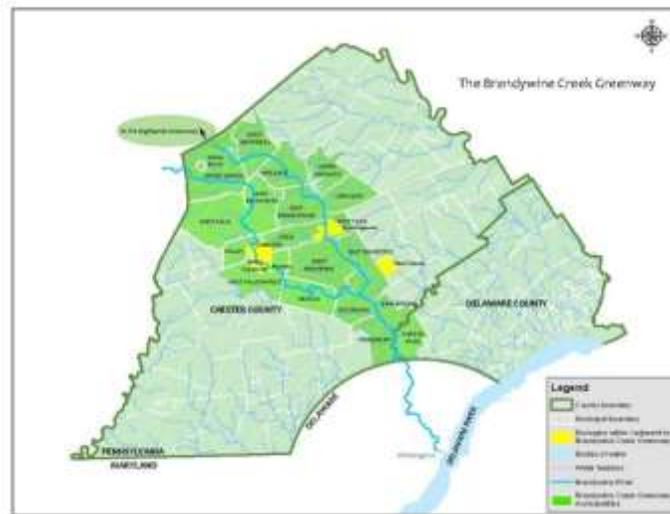
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Introduction



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

1. Part 1 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 (Tool 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.

This Tool Kit (Part 3 of 3) is to be used by municipalities as a basis to explore potentially new approaches to natural and cultural resource conservation. It will help municipalities to identify parcels of land that have important natural, cultural, agricultural, and water resources that could be considered by landowners for conservation and should be considered by municipalities during the land development process if private land conservation is not an option. The series of regulatory and non-regulatory tools include a brief introduction to the issues that each tool addresses, a description of how the tool can be implemented, its applicability in the Brandywine Creek Greenway, and a list of other resources that are available to learn more about the tool. Resource Summary maps highlight parcels of land with important natural (habitat), cultural, agricultural, and water resources to be considered for conservation or protection. Two maps highlight opportunities for restoration of woodlands and water resources. A list of the Portfolio Projects (described in Part 2 of 3) is included since it lists where several green corridors are planned at the municipal level. The final section of the Tool Kit (to be published in the next

draft) provides model natural resource protection ordinances that can be modified to suit each municipality and adopted by Board resolution. The model ordinance includes provisions for conservation of steep slopes, woodlands, wetlands, riparian buffers, and floodplains.

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Regulatory and Non-regulatory Tools



Contents

Regulatory Tools	5
Sketch Plan.....	7
Conservation Design	9
Existing Resources and Site Analysis Plan (ERSAP)	11
Floodplain Regulations.....	13
Public Land Dedication & Fee-in-Lieu	15
Resource Protection Regulations.....	17
Transferable Development Rights	19
Stormwater Management with Best Management Practices (BMPs).....	21
Rural Conservation Zoning.....	23
The Official Map.....	25
Non-regulatory Tools	27
Agricultural Best Management Practices (BMPs)	29
Agricultural Easements	31
Agricultural Security Areas (ASAs)	33
Conservation Easements.....	35
Fee Interests	39
Joint Ventures and Leveraging Funds	41
Land Trust Assistance.....	43
Open Space Referenda and Bonds.....	45
Open Space Planning and Prioritization.....	47
Preferential Tax Incentives (Act 319).....	49
Trail Easements.....	51



Regulatory Tools

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Sketch Plan

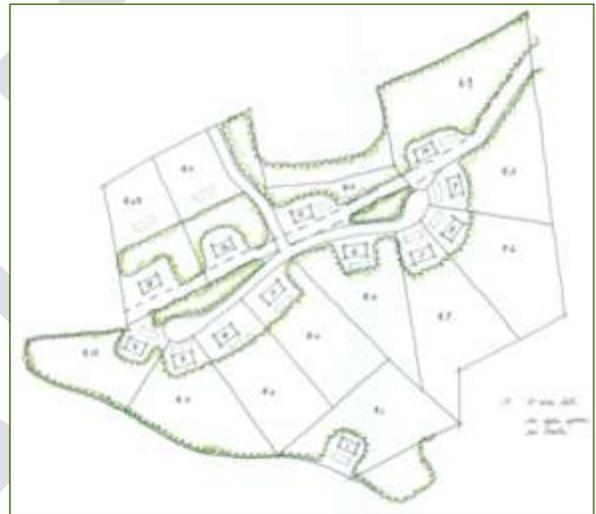
Introduction

What issues does this tool address?

In many instances, when a preliminary plan is submitted for a land development application, the site engineering is substantially complete and the applicant has a considerable investment in the preliminary plan. The applicant is often reluctant to make dramatic (or even modest) changes in the final plan. The Sketch Plan option provides an incentive for the applicant to meet with municipal officials in order that both may discuss the land development project at the conceptual level before preliminary engineering begins.

What does this tool accomplish?

Discussion allows the municipality and the developer to articulate their goals for the project and to discuss site layout and design alternatives. It benefits both parties; by facilitating the approval process for the developer (a financial savings), the municipality can achieve its community development objectives.



Implementation

How is this tool implemented?

1. By updating the Comprehensive Plan, OSRER, and Official Map to articulate community development objectives.
2. Through an amendment to the “Plan Process and Content” provisions in the SALDO Procedure: Sketch Plan and Site Visit; Preliminary Plan; Final Plan.
3. The sketch plan option can be bundled with ERSAP, Conservation Design Option, Natural Features Protection Ordinance, Historic Resource Protection Ordinance, or an EAC (optional).

Applicability

How can this tool be used in the BCG?

- Relevant for municipalities that are in the path of new development or potentially subject to future development pressures.
- Effective in municipalities with scenic roads or byways, scenic rivers, historic resources, prime agricultural soils, community trail plans, transportation improvement plans, open space preservation plans, and/or greenway plans.



- To help balance new development with resource protection.
- Requires municipal representatives to be willing to accommodate an additional step in the land development application process.
- Developers should not expect to achieve maximum density under the zoning.



More information

Where can one learn more about this tool?

- Examples to review include: Kennett Township SALDO Subsection 206-305; and Thornbury Township, Delaware County SALDO Subsection 22-402.

Natural Resource Protection Ordinance preparation assistance

- The Brandywine Conservancy.
- Natural Lands Trust.
- Chester County Planning Commission.



Conservation Design

Introduction

What does this tool accomplish?

- Avoids many of the negative aspects of sprawl.
- Fits new development into the character and landscape of the community.
- Enhances resource protection initiatives.
- Implements specific planning objectives.

Implementation

How is this tool implemented?

- Through local land use regulation.
- Usually offered as a zoning option to conventional lot-out development.
- Permitted “by right” or via conditional approval.
- “Four-step design process.”
- Zoning provisions provide for overall density, use types & lot sizes, and open space.
- Design standards may be provided in Zoning or in the SALDO.

Keys to Ultimate Effectiveness of Conservation Design

- Adoption of flexible regulatory provisions.
- Careful plan review.
- Deliberate crafting of conditions of approval.
- Education regarding landowner options.



Success

Where has this tool been used successfully?

Upper Uwchlan Township, Kennett Township, and South Coventry Township.

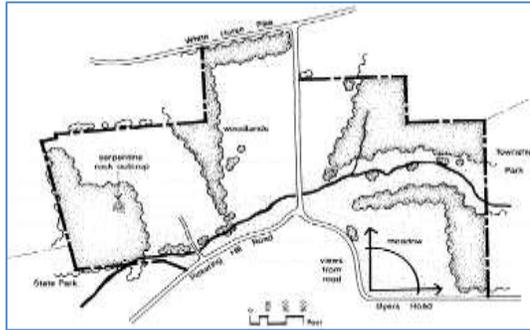
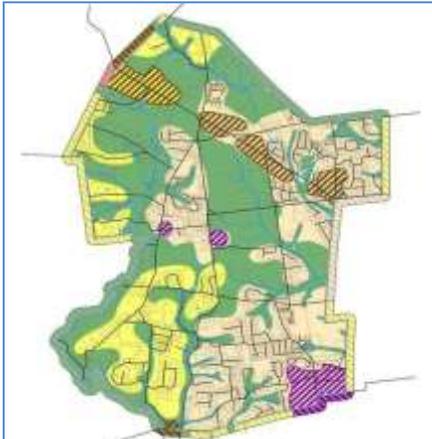
Applicability

How can this tool be used in the BCG?

- The Conservation Design tool is already used broadly and variably in the Brandywine Creek Greenway region.



- The tool is applicable in every township, less so in the boroughs due simply to lack of larger-scale developable land.
- Successful use of Conservation Design, whether termed “Open Space Design” or “Flexible Development” or “Cluster Development,” depends on both the design standards for development and open space AND the degree to which more conventional development options are more or less favorable for developers.



More information

Where can one learn more about this tool?

Contact:

- Chester County Planning Commission.
- The Brandywine Conservancy.
- Natural Lands Trust.



Existing Resources and Site Analysis Plan (ERSAP)

Introduction

What issues does this tool address?

A typical land development application is required to provide site information regarding contours, wetlands, floodplains, and steep slopes. However, there are often no provisions in the municipal ordinance for the applicant to identify important natural features such as: sensitive habitat; specimen trees; high quality woodlands; woodland interior; hydric soils; site hydrology; prime agricultural soils. Municipal ordinances also typically do not require the applicant to consider site context for: a regional complex of natural areas; connections among habitat areas; habitat corridors; woodland complexes; existing or planned greenways or trails; or alternative transportation.

What does this tool accomplish?

The ERSAP provision in a municipal SALDO helps municipal officials to understand which areas on a proposed land development site have the least sensitive natural features and are most suitable for development. An ERSAP empowers municipal officials to require that the most sensitive natural features are left undisturbed. This approach to site design is often referred to as Conservation Design or Low Impact Development, and it is consistent with stormwater best management practices.



Implementation

How is this tool implemented?

1. Prepare a Botanical Survey, Woodland Classification Study, and Exceptional Natural Areas Inventory for the municipality.
2. Draft a Natural Resource Protection Ordinance update to the SALDO.
3. Bundle the ordinance update with a Conservation Design option, stormwater ordinance, and/or sketch plan review option.

Applicability

How can this tool be used in the BCG?

- Relevant for municipalities that are in the path of new development or potentially subject to future development pressures.
- Effective in municipalities with woodland interior habitat, wetlands, Pennsylvania Natural Diversity Inventory sites, Important Bird Areas, confirmed populations of state-endangered or threatened plants or animals.



- Suitable in municipalities with sensitive natural features that are not protected by state and/or federal regulation (such as floodplains, surface waters, wetlands).

More information

Where can one learn more about this tool?

Examples to review include:

- Pocopson Township SALDO Subsection 190-23.
- Upper Uwchlan Township SALDO Subsection 162-9.D.

Natural Resource Protection Ordinance preparation assistance:

- The Brandywine Conservancy.

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Floodplain Regulations

Introduction

What issues does this tool address?

Flooding occurs even under natural conditions. Flooding is known to worsen as the result of the changes in land surfaces resulting from land development. Flooding directly destroys valuable property and impacts human health. Pennsylvania suffers from one of the nation's greatest losses in terms of flood-linked damage to property as well as loss of life, injury, flood-related human health impacts, etc. Indirectly, flooding and related changes to natural watershed hydrology (e.g., increased stream "flashiness") translate into reduced groundwater recharge, reduced stream base flow, increased streambank erosion, and a general reduction in aquatic richness and diversity in stream systems. It is important to note that as watersheds develop, the nature and extent of flooding worsens – flood events become more frequent and cresting of flood events grows ever higher such that floodplains grow ever broader.



What does this tool accomplish?

A municipality can enact floodplain regulations to limit flooding damage directly to both property and human health as well as to reduce flooding itself. Reducing flooding also results in indirect environmental benefits including reduced streambank erosion and scouring of streambeds, reduced sedimentation, and improved water quality. The net benefits lead to an improved benthic and overall aquatic habitat.

Implementation

How is this tool implemented?

Historically, municipal floodplain regulations in Pennsylvania municipalities have been driven by national Federal Emergency Management Act (FEMA) Flood Insurance Administration (FIA) insurance requirements which are at the core of the national Flood Insurance Program (FIP). In short, if property owners are to be able to purchase heavily subsidized flood insurance (typically very important), municipalities must be members in good standing in the FEMA program and enact minimum FEMA floodplain regulations. These minimum FEMA regulations have a major focus on potential flooding damage to property, as well as human health, requiring that structures be constructed in ways to elevate primary living spaces above 100-year flood elevations. Also, major flooding pathways, or floodways, cannot be constricted as the result of new structures which impede flood flows. It should be noted that with the increase in coastal and non-coastal flood damage across the country in recent years, FEMA is making changes to minimum requirements and making program standards more rigorous.



Central to the FIP are FEMA's floodplain maps with their calculated floodplain elevations linked to historical flooding and flood protection/risk zones. Many of these flood maps are now somewhat outdated and do not reflect overall changes to upstream watershed land use and hydrology, coupled with more recent changes in precipitation/climate data. Typically, flooding resulting from a 1-year storm (2.4 inches of rainfall in a 24-hour period in SE PA) appears to be causing worsened flooding in many downstream municipalities; furthermore, 1-year storms appear to be happening more and more frequently – for whatever reason. In sum, many municipalities are learning that their existing floodplain regulations (typically located in their zoning ordinances) are outdated and not responsive to emerging floodplain management issues and needs. Even setting aside issues of protecting environmental functions and eco-services, conventional floodplain management doesn't seem to be effectively protecting property and safeguarding human life.

From an environmental perspective, minimum FEMA standards have their shortcomings. Minimum standards typically do not limit or manage the extent of clearing, grading, and removal of existing floodplain vegetation, all of which have significant water quantity, flow attenuation, and water quality impacts. Naturally vegetated riparian and floodplain areas slow flood flows, absorb flood waters, and filter sediment and other pollutants. Some municipalities have added additional environmental floodplain management standards to their ordinances, though few are as restrictive as they should be (the Conservancy has model environmental provisions which it recommends that Greenway municipalities adopt).

Applicability

How can this tool be used in the BCG?

Rigorous floodplain regulations should be adopted by all municipalities in the Greenway. These floodplain regulations should be coordinated with watershed and urbanization context (i.e., location in the watershed in terms of stream order, and extent of development occurring upstream and downstream. Floodplain regulations should be integrated with forested riparian regulations as well to avoid duplication and promote clarity and simplicity of application.

More Information

Where can one learn more about this tool?

Virtually all municipalities within the Greenway have adopted floodplain regulations, typically residing in their respective zoning ordinances. Substantial information is available regarding floodplain regulations at www.fema.gov and www.fema.gov/national-flood-insurance-program.

Contact the Municipal Assistance Program at the Brandywine Conservancy for additional help.

Chester County Planning Commission.

Chester County Water Resources Authority.



Public Land Dedication & Fee-in-Lieu

Introduction

What issues does this tool address?

Communities need open space for passive and active recreation and natural areas where wildlife can flourish.

What does this tool accomplish?

Municipalities can require developers to provide land for this purpose, while also permitting several voluntary alternatives, including a fee-in-lieu. Public dedication is sometimes called “mandatory dedication” by land-use planners.



Implementation

How is this tool implemented?

- A municipality must first adopt a Parks and Recreation Plan.
- Then, it amends an existing, or adopts a new, subdivision and land development ordinance that provides for public dedication. This ordinance must contain definite standards (such as number of acres per person).

Voluntary alternatives to public dedication can be offered but not mandated

- Developers may pay a “fee-in-lieu” to be used for parks and rec facilities accessible to the new development.
- Developers may construct recreational facilities.
- Developers may reserve private land within the development for parks and rec use.

If fees-in-lieu are collected:

- **Time:** They must be used within 3 years.
- **Used for:** They can be used to buy parkland, provide infrastructure, buy new equipment, or improve existing parkland that is accessible to the new development.
- **Not used for:** They cannot be used to maintain existing parkland or buy maintenance equipment.



Success

Where has this tool been used successfully?

- This tool has been used with great success in hundreds of municipalities statewide, concentrated in high-growth areas such as Chester County. Local examples include Pocopson, East Brandywine, East Bradford, and Upper Uwchlan townships.

Applicability

How can this tool be used in the BCG?

- This tool helps to achieve a number of the goals of the Greenway, including: non-motorized transportation, conservation, recreation, and aesthetics. Specific functions that public land dedication can fulfill include the preservation of open space and the provision of recreational trails and facilities for residents.

More Information

Where can one learn more about this tool?

- The Brandywine Conservancy.
- Chester County Planning Commission.

Public Dedication of Land and Fees-in-Lieu for Parks and Recreation:

1. <http://conservationtools.org/guides/show/17>
2. http://conservationtools.org/libraries/1/library_items/253-Public-Dedication-of-Land-and-Fees-in-Lieu-for-Parks-and-Recreation



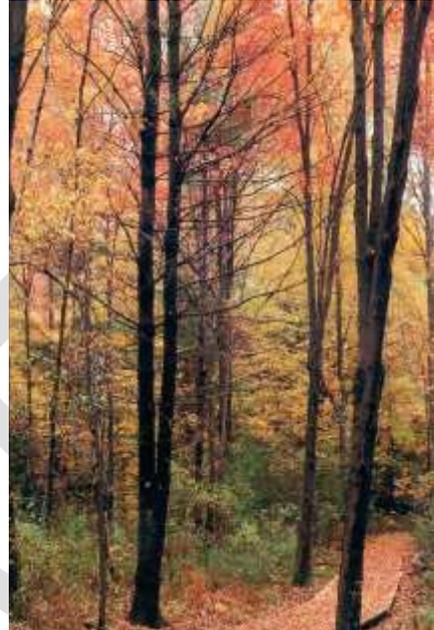
Resource Protection Regulations

Introduction

What does this tool accomplish?

Promoting the conservation of a broad array of resources while providing for on-going community development. Regulations can protect:

- Flood Plains, Wetlands, and Steep Slopes.
- Riparian Buffers.
- Woodlands.
- Unique Natural Areas.
- Greenway Corridors.
- Scenic Landscapes.
- Historic Resources.



Implementation

How is this tool implemented?

- Most resource protection regulation is accomplished via the Zoning Ordinance, which applies all the time and not just to development scenarios.
- Some municipalities regulate certain resources within the SALDO only, so as not to apply rigorous resource protection standards to the average homeowner.
- Resource protection regulations that may stipulate use limitations or outright prohibitions, or may more liberally apply disturbance limitations and/or performance standards.
- Historic resource protection requires provision for viable economic re-use or adaptation.
- A clear and accurate inventory of all subject resources serves as an import qualifier to resource protection regulation.
- All resource regulation should take into account the unique character of individual properties and the need for landowners to undertake lawful land use.

Success

Where has this tool been used successfully and what were the outcomes?

- Every municipality is subject to Flood Plain regulation and Wetland regulation which have minimized disturbance of these resources in recent decades.
- Most municipalities regulate the disturbance of steep slopes with relative success.



- Few municipalities regulate unique natural areas or riparian buffers beyond regulation imposed by the state.
- Limited regulation has successfully been imposed at the municipal level for woodlands, greenways, scenic landscapes and historic resources, although we enjoy some excellent examples in the Brandywine Creek Greenway region.

Applicability

How can this tool be used in the BCG and in which municipalities might it be suitable?

- Local regulation of natural and cultural resources can be enacted or enhanced in every municipality within the Brandywine Creek Greenway region.
- Suitability of specific forms and applicability of regulations are dependent upon both the unique characteristics of each municipality (e.g., what resources are present?) and the community conservation and development objectives.

More Information

Where can someone learn more about this tool?

- Chester County Planning Commission.
- The Brandywine Conservancy.



Transferable Development Rights

Introduction

What does this tool address?

- Loss of farms and forests.
- Development impacts to watersheds.
- Suburban sprawl.

What does this tool accomplish?

- Saves land and manages growth.
- Pays landowners for development rights.
- Balances “zoning’s” winners and losers.



Implementation

How is this tool implemented?

Established in zoning by:

- Creating the sending areas—resources to be protected permanently.
- Creating the receiving areas—development to be accommodated through planning.
- Administering the program—simple tracking of the TDR exchanges.

Success

Where has this tool been used successfully?

Chester County-Honey Brook Township; West Vincent Township. Lancaster County- Warwick Township; Penn Township; Caernarvon Township.

Applicability

How can this tool be used in the BCG?

- Can be applied to remaining areas of farms and forests.
- Could help limit public infrastructure encroachment.
- Discourage subdivisions outside of growth areas.
- Utilize urban areas for intended development.
- Partner with land trusts to encourage tool use.



More Information

Where can one learn more about this tool?

- The Brandywine Conservancy's publication – Transfer of Development Rights, A Flexible Option for Redirecting Growth in Pennsylvania.
- Chester County Planning Commission.
- <http://pa-lancastercountyplanning.civicplus.com/documentcenter/view/162>
- <http://conservationtools.org/guides/show/12-Transfer-of-Development-Rights>,
- <http://www.beyondtakingsandgivings.com/tdr.htm> (An up-to-date TDR website)

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Stormwater Management with Best Management Practices (BMPs)

Introduction

What issues does this tool address?

- Localized and downstream flooding.
- Groundwater recharge.
- Stream baseflow.
- Water quality.
- Streambank erosion.
- Nonpoint source pollutant loadings in runoff.
- Temperature impacts.
- Source water protection.



What does this tool accomplish?

- Balances land development with water resource needs/values.
- Quantitatively, minimizes runoff volumes and slows peak rates to minimize local and downstream flooding, protect recharge and baseflow, and mimic pre-development hydrology.
- Qualitatively, minimizes addition of sediment, nutrients, toxics, other runoff-borne pollutants in order to protect aquatic biota/macroinvertebrates and to protect water supplies and minimize treatment costs and protect recreational values and overall quality of life in the watershed.
- Satisfy increasing legal/regulatory/permitting requirements from State and Federal.

Implementation

How is this tool implemented?

Municipal Prominence with County Role and State Role and Federal Role.

For Existing Sources of Stormwater

- MS4/TMDL: Most, not all are MS4s.
- All have TMDLs though varies with Urbanized Areas, Regulated Outfalls, etc.

For New Sources of Stormwater



- New Act 167 Model Ordinance Minimum.
- Relatively New Chapter 102 and other Regs.
- PADEP BMP Manual, other sources for LID, Green Infrastructure, Smart Growth, etc.
- See our GreenTreks/StormwaterPA Site Design Process.

Success

Where has this tool been used successfully?

In many Chester County municipalities and beyond.

What were the outcomes of using the tool?

When BMPs are properly matched to site and development being proposed, then installed and maintained correctly, there is proven quantitative/qualitative success.

Applicability

How can this tool be used in the BCG?

MS4/TMDL requirements must be satisfied. Act 167 model ordinance requirements must be satisfied.

Integrate BCG “extras” to provide added benefits and achieve Greenway goals and objectives.

In which municipalities might this tool be suitable?

Virtually all municipalities can/should use this tool to the maximum, given that it’s basically a requirement, and provides maximum environmental and quality of life/community enhancement bang for the buck.

Perhaps a BCG overlay that sorts out special MS4/TMDL and 167/New Source provisions for LID/Green Infrastructure/Smart Growth varying by municipal density context?

More Information

Where can someone learn more about this tool?

- Brandywine Conservancy.
- CCWRA website.
- PADEP and EPA websites.
- Center for Watershed Protection website.



Rural Conservation Zoning

Introduction

What does this tool address?

Loss of farms and forests.

Loss of rural character.

Suburban sprawl.

What does this tool accomplish?

Protects prime farm lands.

Retains viable mass of agriculture.

Protects rural resources while providing landowners with rural housing options.



Implementation

How is this tool implemented?

Typically establishes zoning districts that:

- Favor continued agriculture over non-farm residential uses (effective agricultural zoning) or allow for farming, forestry, and low-density residential uses (rural conservation zoning).
- Include incentives for conservation.
- Complement the uses of conservation easements and transferable development rights.

Rural conservation protects natural/cultural resources through choosing the residential subdivision options.

Success

Where has this tool been used successfully?

Used in various forms within the upper reaches of the Greenway, including Honey Brook, West Caln, West Nantmeal and West Brandywine Townships.

Applicability

How can this tool be used in the Brandywine Creek Greenway?

Apply to remaining areas of farms and forests.

Limit public infrastructure encroachment.



Combine with natural/cultural resource protection regulations.

Discourage cookie-cutter subdivisions.

Promote use of conservation design/open space developments.

More Information

Where can someone learn more about this tool?

- www.co.lancaster.pa.us. Greenscapes Element of the Lancaster County Comprehensive Plan – *Balance*.
- <http://conservationtools.org/guides/show/67-Agricultural-Protection-Zoning>,
- The Center for Rural Pennsylvania, Zoning for Farming, A Guidebook for Pennsylvania

on



Municipalities
How to Protect
Valuable
Agricultural
Lands, 1995.



The Official Map

Introduction

- Provides the right of first refusal to municipalities.
- Helps focus limited financial resources on projects to meet community goals.
- Helps municipalities make improvements such as improving the local street network; protecting important natural areas; and providing more green space, recreation facilities, trails, and sidewalks.
- Saves time and money by informing property owners and developers of municipal goals and intentions ahead of development plans.
- Helps to ensure that development is compatible with and supportive of public goals.
- Supports zoning and subdivision/land development ordinances by helping provide infrastructure and acquire public spaces.
- Helps secure grants.

Implementation

How is this tool implemented?

- Based on a current, adopted Comprehensive Plan and possibly other plans and studies, such as traffic studies, open space & recreation plans, etc.
- Public education.
- The map itself is the ordinance.
- The Zoning and Subdivision ordinances should be amended to reference the Official Map.

Success

Where has this tool been used successfully?

- 64 municipalities in the state have an Official Map (as of 6/2011) including: 16 in Chester County and 6 in the Brandywine Creek Greenway (Birmingham, East Bradford, East Caln, Honey Brook, Uwchlan, and West Bradford Townships).

What were the outcomes of using the tool?

- Open space preservation and multi-use trails in East Bradford Township.

Official Map East Bradford





- Development of an extensive, interconnected trail network in Uwchlan Township.
- Preservation of important natural areas in Bushkill Township, Northampton County.

Applicability

How can this tool be used in the BCG?

The top four goals for the entire Greenway have been identified as

1. **Recreation:** The Official Map can be used to prioritize land for acquisition and use as public parks and trails.
2. **Conservation:** It can also be used to identify land as a conservation priority.
3. **Water quality:** If that land includes riparian areas, conserving it can protect and improve water quality.
4. **Transportation:** The Official Map can be used to identify multi-use trail corridors, as well as to improve the street network.

In which municipalities might this tool be suitable?

- Any municipality!

More Information

Where can someone learn more about this tool?

- *The Official Map: A Handbook for Preserving and Providing Public Lands & Facilities.*
http://conservationtools.org/libraries/1/library_items/931
- The Brandywine Conservancy.



Non-regulatory Tools

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Agricultural Best Management Practices (BMPs)

Introduction

What does this tool accomplish?

Agricultural Best Management Practices (BMPs) are farming methods designed to mitigate the potential adverse environmental effects farming can have while maintaining the agricultural business' vitality of the farm.

Implementation

How is this tool implemented?

The first step is to have a Conservation Plan and possibly a Nutrient Management Plan completed for the farm. These plans will analyze the physical properties of the farm in conjunction with the type of Agri-business being conducted. The analysis will then dictate the types of BMPs for the specific cropping situation in combination with the land type (for example: soil, slope, or proximity to open water).

Applicability

How can this tool be used in the BCG?

All farms should meet with an agricultural consultant to ensure that the current stewardship of the farm is capitalizing on all the up to date opportunities to mitigate the impact of their activities on the environment.

More information

Where can one learn more about this tool?

Chester County Conservation District

- Dan Miloser 610-925-4920.

Natural Resources Conservation Service (NRCS)

- Beth Sassaman, 610-696-0398 ext 114.

The Brandywine Conservancy

- John Goodall 610-383-9515
- Grant DeCosta 610-388-8117





Agricultural Easements

Introduction

What does this tool accomplish?

Enables landowners to separate and sell their development rights from other property rights.

Landowners retain all other rights of ownership, including the right to farm, prevent trespass, sell, bequeath or otherwise transfer the land.

County pays the difference between value of the land for agriculture and the value of the land for its “highest and best use,” generally residential or commercial development.

Implementation

How is this tool implemented?

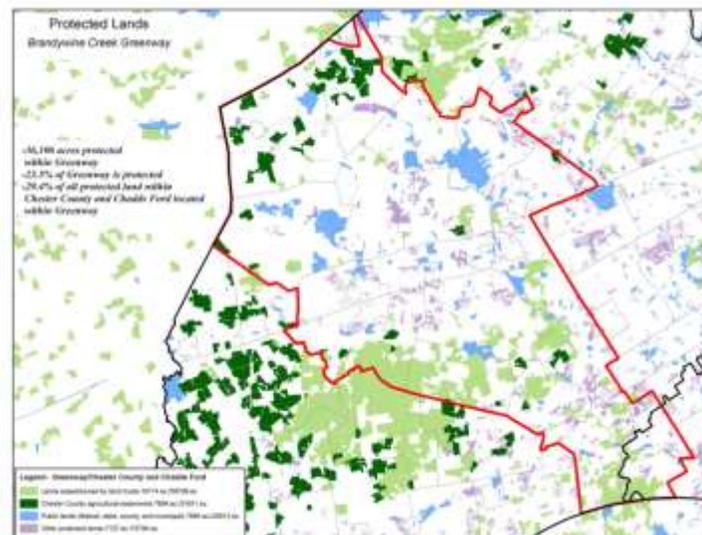
Farm selection gives 40% consideration to land evaluation (how productive soils are) and 60% consideration to site evaluation. The 60% consideration to site evaluation breaks down into 25% for Farmland Productivity and Conservation practices, 10% for development risks, and 25% for farmland clustering.

Applicability

How can this tool be used in the BCG?

To apply to the County/State Agricultural Preservation Program, a farm must have:

- At least 50 acres (challenge grant 25 acres), or at least 10 acres producing a crop unique to the area, or at least 10 acres contiguous to a property with a perpetual conservation easement.
- At least 50% of the soils must be available for Ag production and in Classes I through IV.
- Contain the greatest option of either 50% or 10 acres of harvested cropland, pasture or grazing land.



More information

Where can one learn more about this tool?

Chester County Agricultural Preservation Program



- Diana Hoopes 610-344-5656.

Brandywine Conservancy

- John Goodall 610-383-9515.

Application Deadline may be in August but is subject to change.

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Agricultural Security Areas (ASAs)

Introduction

What issues does this tool address?

The Agricultural Security program began in 1981 as a tool for strengthening agriculture as part of the “Right –to-farm”. An ASA is an area where agriculture is the primary activity and farmers are entitled to special protection from condemnation and laws and ordinances that would unreasonably restrict farming operations.

Farms enrolled in an Agricultural Security Areas (ASA) are protected from municipal zoning that adversely affects the farming operation and are also given a level of protection from eminent domain. A farm enrolled in an ASA is also eligible to participate in County/State Farmland Preservation Programs.

Implementation

How is this tool implemented?

ASAs are created by local municipalities with individual farmers that agree to collectively place at least 250 acres in an ASA. An eligible farm must be at least 10 acres in size and have viable farmland. Every seven years the municipality reviews their ASA.

Participants receive special consideration regarding:

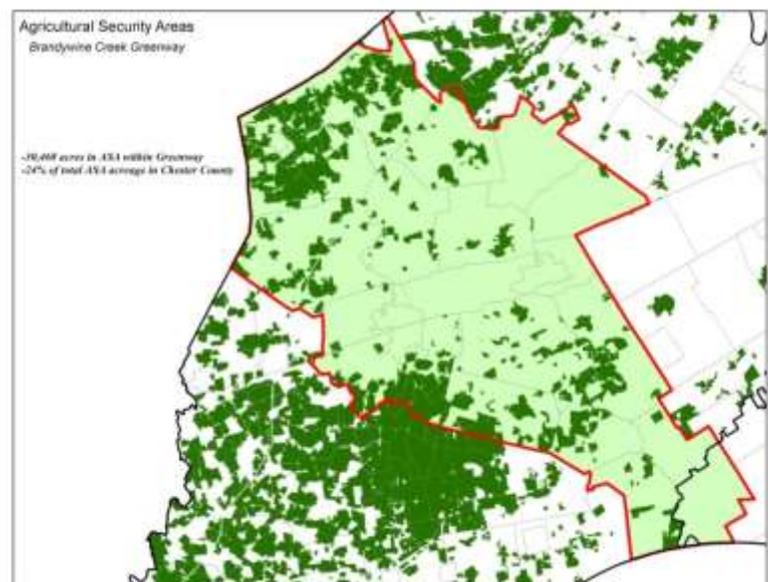
- Local ordinances affecting farming activities.
- Nuisance complaints.
- And review of farmland condemnation by state and local government agencies.

An ASA qualifies land for consideration under Chester County’s Easement Purchase Program at the landowner's request, if the ASA has at least 500 acres enrolled.

Applicability

Where can this tool be used within the BCG?

An ASA is a productive tool to alleviate potential unforeseen municipal/Agra-community ordinance conflicts while also creating opportunities for municipalities to engage the farming community in other dialogues (i.e. farmland preservation).





More Information

Where can someone learn more about this tool?

- Your Municipal Office.
- Brandywine Conservancy Western Area Manager; John Goodall 610-383-9515.
- Chester County Planning Commission.

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Conservation Easements

Introduction

What issues does this tool address?

A conservation easement allows land to be permanently preserved at a potentially lower cost than the cost of purchasing and holding a fee interest. The land remains in private hands. A land trust or government entity can hold the easement and be responsible for monitoring and enforcing it. There is no obligation to require public access.

What does this tool accomplish?

A conservation easement is a voluntary restriction of private property rights. An easement permanently restricts the uses and activities on the land to protect its conservation values. Restrictions are tailored to the particular property and the mutual goals of the holder and the landowner.

Implementation

How is this tool implemented?

A conservation easement is a legal agreement between landowner and an eligible organization. Eligible organizations (under the tax code) include land trusts, municipalities, and other government entities. An easement is recorded as a deed restriction in the county office of the Recorder of Deeds and applies to all future owners.

Easement Preparation Process

A land trust can work with a municipality to help it preserve land by means of conservation easements. After initial meetings with an interested landowner to explain the easement preparation process and confirm their interest in placing an easement on their property, deeds should be checked for any encumbrances and a title report is ordered. The land trust sends a proposal letter to the landowner and the township, outlining the terms of the easement and the project costs. These costs include the time to write the easement and the baseline documentation report and to create an easement plan (map); an endowment to perpetually monitor and enforce the easement; and the cost of any needed surveying. Once the proposal is approved and signed by the landowner and the township, the land trust drafts the easement. If the easement is being purchased, an appraisal is ordered. An easement purchase agreement is prepared with an offer price based on the appraisal and is presented to the landowner. The township board of supervisors passes a resolution authorizing the easement purchase. A survey of the property boundary or designated building areas is ordered if needed. The easement is finalized and the baseline documentation report is prepared. Title insurance is ordered, and settlement occurs. (This, of course, would be slightly different if the project doesn't involve a township.)



Conservation Easement Plan (map).

Holding and Stewarding Easements

- The grantee or primary holder of an easement is often a land trust, and the municipality and other grant providers may be named as co-grantees, co-holders or beneficiaries. Any of these entities are considered qualified conservation organizations under the Internal Revenue Code and can serve as the primary grantee/holder.
- The advantages of having a land trust serve as the as primary easement holder and steward include experience, staff capacity, technical capabilities and tools such as GIS mapping, and dedicated endowment funds for stewardship and enforcement. On the other hand, the municipality is closest to the property and has local contact with the landowners.

Success

Where has this tool been used successfully?

- Throughout Chester County and the United States.

What were the outcomes of using the tool?

- In the Brandywine Creek watershed (shown outlined in red) as of March 2013, 8,823 acres (4% of the watershed) were preserved with agricultural conservation easements (shown in dark green); and 23,047 acres (11% of the watershed) were preserved with easements held by the Brandywine Conservancy (shown in light green).

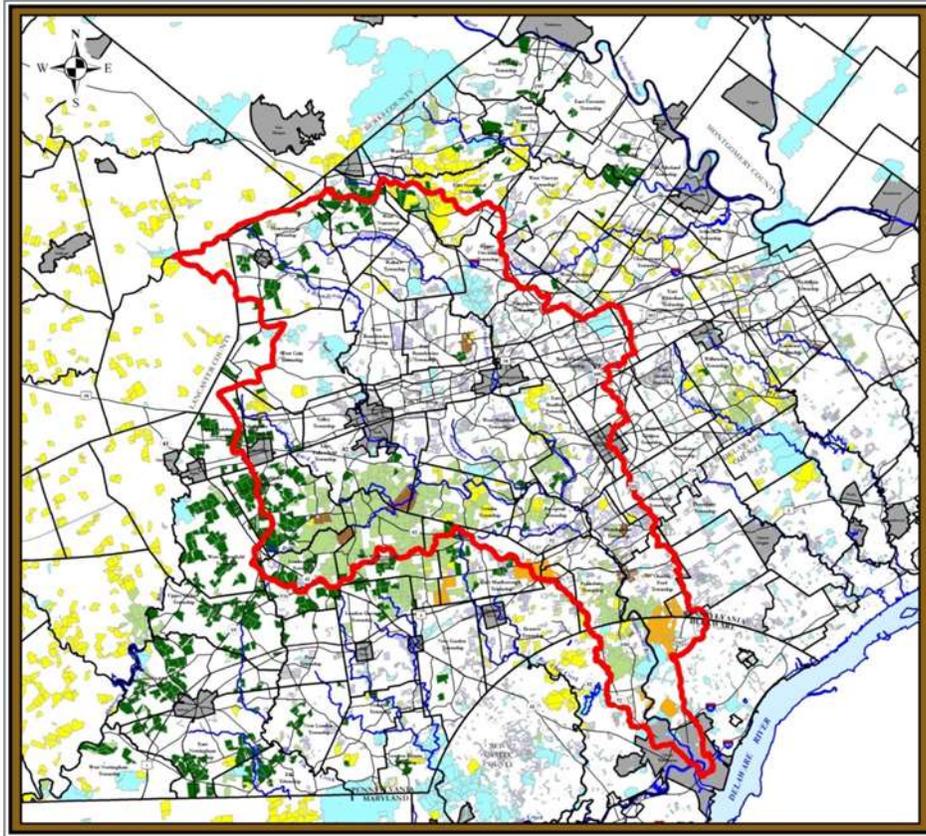
Applicability

How can this tool be used in the BCG?

- Conservation easements can be donated by willing landowners, purchased with various grant and municipal funds, or partially purchased and partially donated. Municipal outreach to landowners can include public meetings and individual visits. A land trust can create



mapping and analysis of particular parcels and can provide materials on conservation easements and the easement process. Staff can then follow-up with discussions regarding landowner goals, easement terms, and funding opportunities.



Brandywine Creek Watershed Preserved Lands Map

More Information

Where can someone learn more about this tool?

The Brandywine Conservancy's materials include a Conservation Easement brochure and General Guidelines for Conservation Easements.

A good source of more information regarding conservation easements in Pennsylvania is the Pennsylvania Land Trust Association (PALTA) website: conserveland.org.

Information regarding Chester County's Open Space Preservation Program can be found on their website: <http://www.chesco.org>.



Fee Interests

Introduction

What issues does this tool address?

Municipalities can acquire full ownership of open space, historic buildings, or high priority real estate through purchase or donation. .

What does this tool accomplish?

- Public parks and preserves allow active and passive recreation for residents.
- Purchase or donation of land can be used to preserve important natural, agricultural, and historic resources.
- Public parks and open spaces often provide opportunities for environment education.



Implementation

How is this tool implemented?

- Land may be donated by private landowners.
- Land may be purchased by a municipality with a combination of grant and municipal funds.
- Township has sole control of the property as well as the obligation to maintain it. A stewardship plan should be prepared that outlines the projected uses and maintenance tasks.

Applicability

How can this tool be used in the BCG?

- Interested municipalities can partner with county agencies, state agencies, other municipalities, local non-profit organizations, and private foundations to pursue grants and matching funds.
- Public open space may be used for the conservation of natural habitats, historic preservation, agricultural preservation, flood mitigation, or recreation.

More Information

Where can one learn more about the tool?

- Chester County Planning Commission.



- Visit the PALTA website at conserveland.org.
- Visit the Pennsylvania DCNR website for grant programs at <http://www.dcnr.state.pa.us/brc/grants/c2p2programguidance/index.htm>

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Joint Ventures and Leveraging Funds

Introduction

What issues does this tool address?

- Lack of expertise, experience, or resources.
- Limited funding or ineligibility to apply for funding.

What does this tool accomplish?

- Creates meaningful partnerships.
- Offers supporting talents.
- Builds a broader funding base.
- Improves scores on grant applications.
- Reduces cash outlays by providing matching funds.

Implementation

How is this tool implemented?

1. Find a willing partner with mutual interests.
2. Agree on preservation goals and method and division of responsibilities.
3. May want a memorandum of understanding (MOU) with partners.
4. Determine funding needs.
5. Appraisals and/or bids.
6. Identify potential funders, considering both public and private sources (Federal, State, City, Non-Profit, Private)

Applicability

How can this tool be used in the BCG?

- Park Acquisition.
- Land Preservation.
- Tail Easements.





- Suitable in all municipalities.

More Information

Contact

PA DCNR

- Community Conservation Partnership Grant Program (C2P2).

DVRPC

- Regional Trails Program.

Chester County

- Open Space Preservation Programs.
- Farmland preservation.
- Conservancy grants.
- Municipal grants.
- Community Revitalization Program.

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Land Trust Assistance

Land Trusts can provide :

- expertise & experience,
- new sources of matching funds,
- staff assistance.

Services Including:

- Property Stewardship Plans
- Municipal Prioritization Planning.
- Grant Application Assistance.
- Marketing Assistance & Outreach.
- Legal Document Development.
- Project Management & Implementation.
- Mapping Services thru GIS.



Finding a Land Trust

- Go to Chester County Open Space Preservation Program website for links to local land trusts and non-profits.

Caution:

- Land trusts have their own priorities.
- May charge for their services.

Examples:

- Solebury Township.
- Birmingham Township.
- Franklin Township.
- Londonderry Township.
- East & West Bradford Townships.
- Honey Brook Township.



- Pocopson Township.

More Information

- The Brandywine Conservancy.
- Pennsylvania Land Trust Association – ConserveLand.org.

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Open Space Referenda and Bonds

Introduction

What issues does this tool address?

Lack of funding for open space preservation efforts.

What does this tool accomplish?

Helps a municipality find a funding source to leverage their resources.

Implementation

How is this tool implemented?

Through Act 153

- Requires Referendum.
- Establishes Dedicated EIT or Property Tax.
- May only Fund Acquisition.

Other Funding

- Electoral Debt.
- Non-Electoral Debt.
- May fund Recreational Development.

Applicability

How can this tool be used in the BCG?

Thirty-three Chester County Municipalities have established dedicated open space preservation funding sources and rely on county, state, federal, and other funds to leverage their limited resources to meet local and regional open space preservation goals.

Applicability

How can this tool be used in the BCG?

- Acquisition of open space, park lands, and trail rights-of-way.
- Acquisition of agricultural and conservation easements.





- Stewardship Planning.
- Recreational Development.

More Information

Where can someone learn more about this tool?

- DCNR.
- Chester County Planning Commission.
- Your Bond Council.
- The Brandywine Conservancy.
- Natural Lands Trust.

DRAFT



Open Space Planning and Prioritization

Introduction

What does this tool accomplish?

- Defines Open Space Conservation Objectives.
- Natural Resource Protection.
- Agricultural Preservation.
- Cultural Resource Preservation.
- Provision for Recreation/Trails.

Identify Priorities for Acquisition and Development.

- Required for Act 153 Funding.
- Establish Rationale for Grant Funding.

Implementation

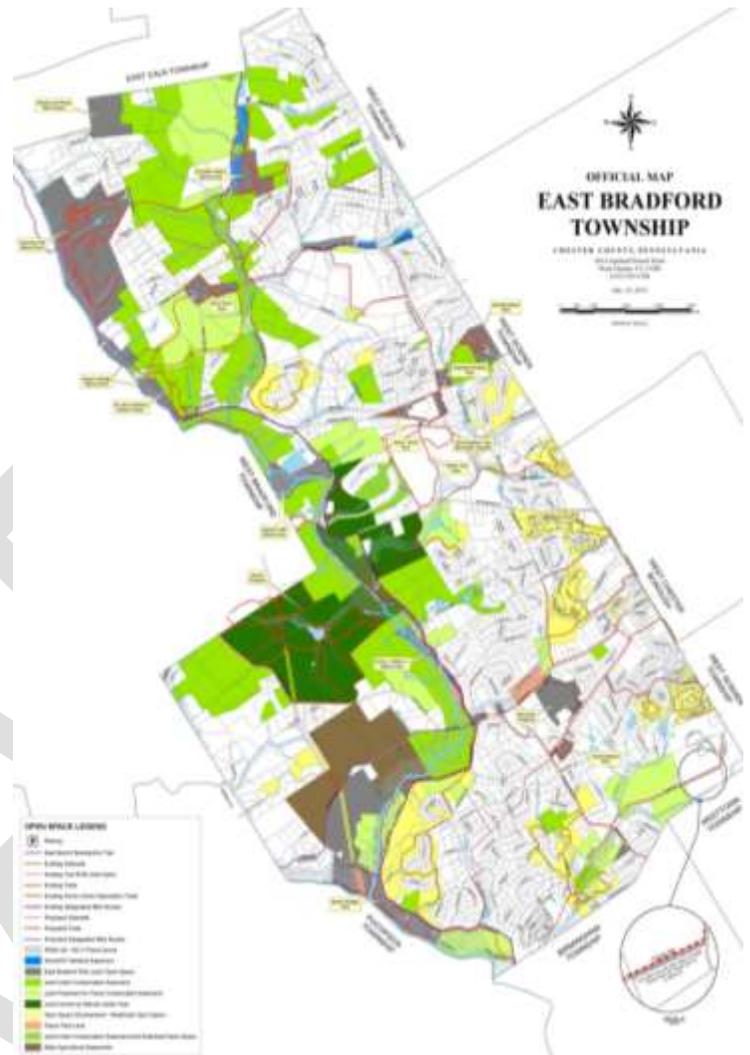
How is this tool implemented?

- Comprehensive Plan.
- Open Space Plan.
- Zoning Ordinance or SALDO.
- Official Map.

Applicability

How can this tool be used in the BCG?

- BCG Municipalities engage in Open Space Planning to varying degrees.
- Comprehensive or Open Space Plans should be updated regularly (e.g., every ten years).
- Official Map can be utilized to cement Open Space priorities.





More Information

Where can someone learn more about this tool?

- Chester County Planning Commission.
- Brandywine Conservancy.
- Natural Lands Trust.



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Preferential Tax Incentives (319)

Introduction: What is 319 Clean and Green?

What issues does this tool address? What does the tool accomplish?

Clean and Green – Pennsylvania Farmland and Forest Land Assessment Act, Act 319 (amended by Act 156 of 1998 and Act 235 of 2004) is a state law, authorized by the state constitution, that allows qualifying land which is devoted to agricultural and forest land use, to be assessed at a value for that use rather than Fair Market Value. The intent of Act 319 is to encourage property owners to retain their land in agricultural, open space, or forest land use, by providing some real estate tax relief.

When a county implements a Clean and Green program, it places two values on each parcel of land that qualifies. These values are known as the Fair Market Value and the Use Value, better known as the Clean and Green Value. After these new values have been certified by the county, tax bills are calculated for each taxing district, using either the Fair Market Value assessment or the Use Value assessment, depending upon whether or not the property owner has enrolled his property in the Clean and Green program.

- A preferential assessment for parcels of land 10 acres* or larger.
- Value derived from agricultural use potential instead of market approach.
- Land value is typically lowered by 30% or more.
- Owner agrees to not subdivide or develop and must pay 7 years of rollback taxes plus 6% interest if agreement is 'breached.'

Implementation

Who qualifies and how do they enroll?

- Any parcel(s) over 10 acres* may qualify.
- Yearly enrollment period runs from March 1 to June 1 of each year and values take effect the following tax year.
- Enrollment is by notarized application only and there is a \$65.50 fee + \$5.00 per application.
- Rejected applicants fees are refunded.

Applicability

How the Agricultural Value is Calculated

- Each class of soil has an 'AgUse' value which is multiplied by the acreage to derive the preferential land assessment.
- Wooded portions are valued at a different rate than the 'tillable' (Chester County uses one wooded rate).



More Information

Who to contact for more information?

Chester County Planning Commission.

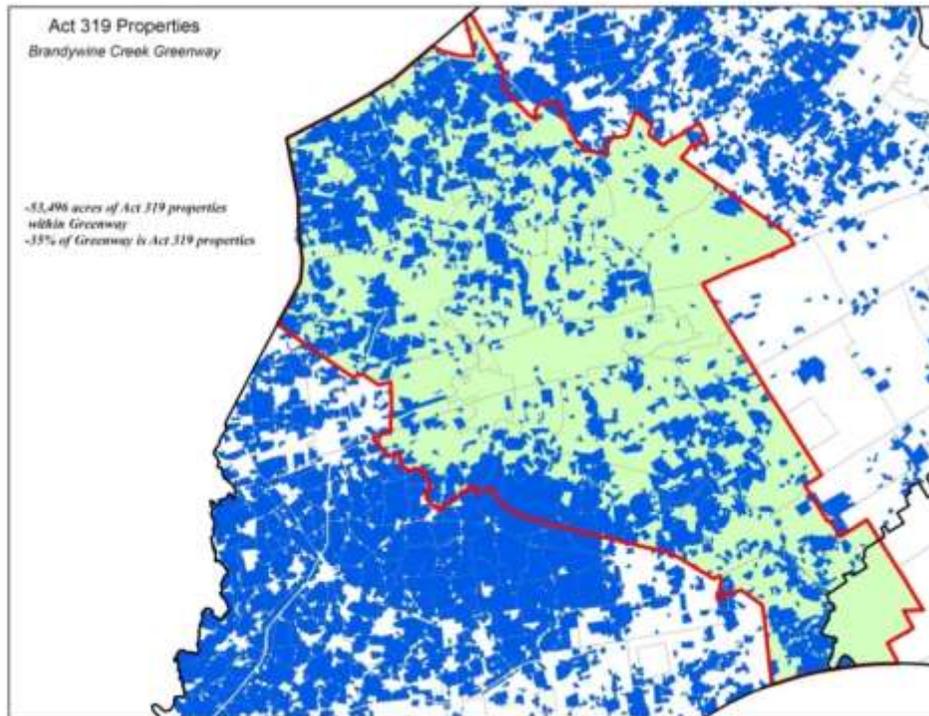
The Chester County Assessment Office.

- Cheryl Pringle
- 610-344-6105

Brandywine Conservancy.

- John Goodall 610-383-9515

Deadline June 1





Trail Easements

Introduction

What does this tool address?

Municipalities that are planning a public recreational trail system cannot afford to purchase properites in ordre to implement the trail system.

What does this tool accomplish?

Trail easements allow public access to private lands at a reduced cost.

Implementation

How is this tool implemented?

- Adopt a Municipal Trails Plan or an update to the Comprehensive Plan.
- Trail Easement Agreement: A municipality is the best Holder or Grantee—it is closest to the location, and able to regularly maintain the trail.
- Trail easements can be granted as a condition of conservation easement purchase by a municipality. A higher easement purchase price may be offered if a trail easement is also conveyed.

Applicability

How can this tool be used in the BCG?

- Trail easements can be utilized for any planned trail as illustrated on the Greenway Recreation Map.
- The tool is especially useful for the Brandywine Trail—an existing footpath that extends from the Mason-Dixon Trail in Pennsbury Township to the Horse-Shoe Trail in west Vincent Township. It is considered an endangered trail as much of the length occurs on private property with verbal permission from the landowners. Trail easements would formalize the use of the trail and ensure that it will be open to the public in perpetuity.
- By donating or selling a trail easement to a government (the “holder”), a landowner may provide their land for a public trail without having to subdivide the land or lose ownership and control of the land. The easement may address matters such as:





- How wide is the trail and what sort of facilities are allowed?
- Are bicycles allowed? Horses? Picnicking?
- May the landowner close the trail temporarily for hunting? Timber harvests? Manure spreading?
- Who is liable if there is an accident?

More Information

Where can one learn more about the tool?

- Chester County Planning Commission.
- Visit the PALTA website at conserveland.org.
- The Brandywine Conservancy.

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Resource Summary Maps

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Resource Summary Maps

Four Resource Summary maps depict tax parcels of 10 acres or greater that are likely to contain important natural and cultural resources. The Resource Summary maps are to be used as a basis for municipalities to explore potentially important parcels for natural and cultural resource conservation. The data for the maps was obtained from: Chester County GIS Department, 2012; Delaware County GIS Department, 2012; and Chester County Planning Commission, 2013.

Each municipality has its own unique set of priorities for conservation; therefore the maps are presented according to four themes: Natural Resources (wildlife habitats); Water Resources; Agricultural Resources; and Cultural Resources. This suite of maps will provide a basis for municipalities and landowners as they consider parcels of land for natural, cultural, agricultural, and water resources conservation.

Generally, only parcels of 10 acres or greater were analyzed for the presence of resources. The darker colors indicate parcels with a presence of the greatest number of resources and the lighter colors show parcels with the least number of resources. No minimum acreages of resources were taken into account in the analysis – so parcels with 20 acres of woodlands received the same credit as parcels with .01 acres of woodlands. **No prioritization is implied by this mapping.** The summary maps are to be used as a primitive indicator of what is located on each parcel. A detailed site inventory and analysis is required in each case to determine the true extent of any resources. The natural and cultural resource data that was used to create the Summary maps is illustrated on the Water Resource, Agricultural Resources, Cultural Resources, and Natural Resources Inventory maps provided in Appendix A.

The resources data were rated according to the presence of the following values:

Water Resources - maximum possible score=5

Received a point for each of the following:

- Located within Special Protection Watershed (EV/HQ)
- Presence of forested riparian buffer
- Presence of 100-year floodplain
- Presence of NWI wetlands
- Presence of 1st order streams

Agricultural Resources - maximum possible score=3

Received a point for each of the following:

- 50% prime ag. soils
- 75% prime ag. soils
- Adjacent to conserved land



Also shown but not counted are Agrarian Landscapes from Chester County's *Landscapes 2 Comprehensive Plan*. See <http://chescopagreen.org/intro/landscapes2.cfm> for a complete description of this future land use category applied to prime agricultural lands within the County.

Cultural Resources-maximum possible score=3

Received a point for each of the following:

- Frontage along Brandywine Creek-Main Branches only, not tributaries
- Frontage along Brandywine Valley Scenic Byway
- Frontage along designated township scenic roads, along with route 82 and route 282

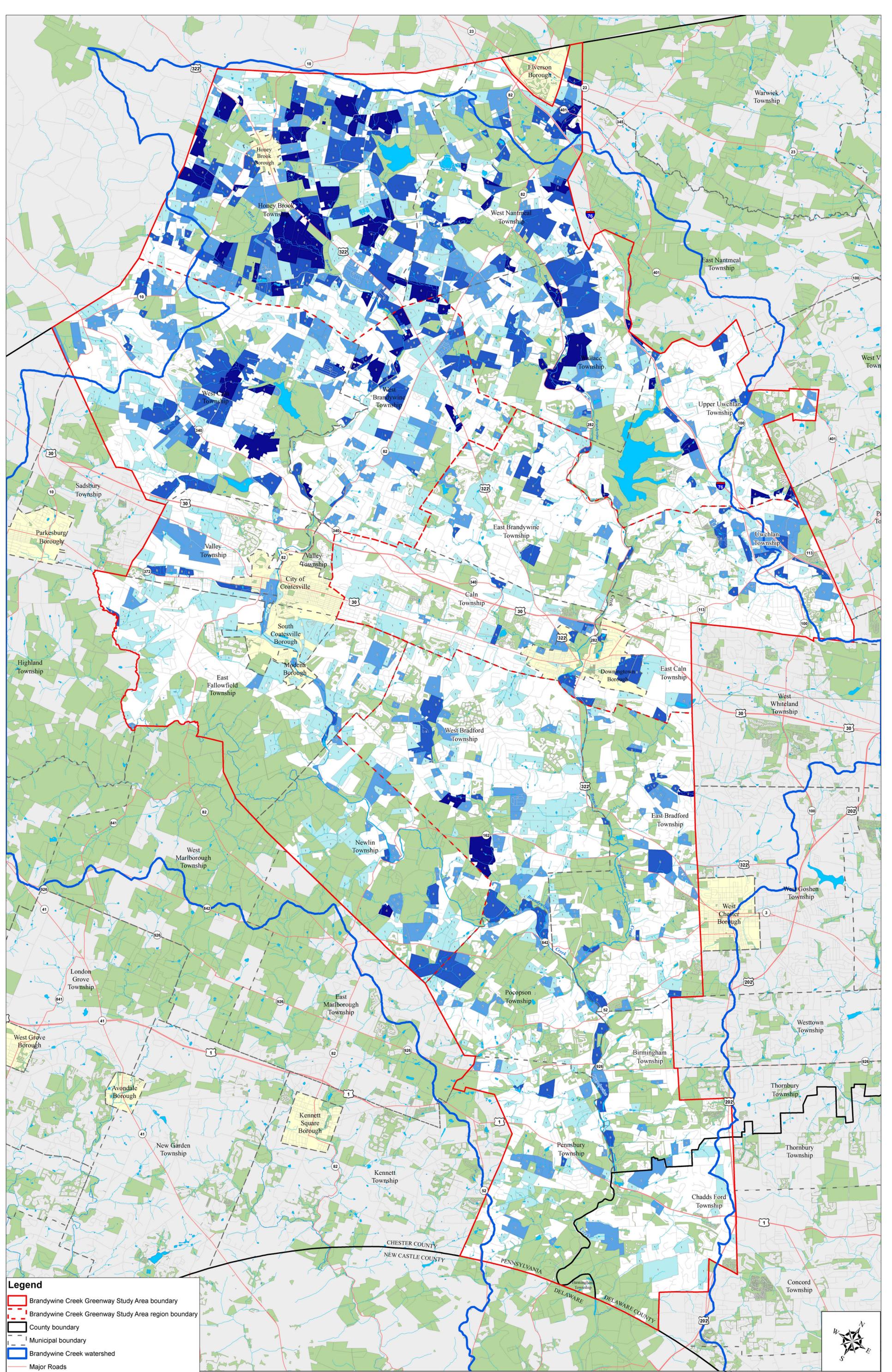
Also shown are stars which represent the center point of National Register or National Register eligible parcels, but are not counted. A star does not imply resource location, and there may be more than one historic structure located at that location. This data is derived from the Chester County Historic Atlas which is in the process of being updated.

Natural Resources-maximum possible score=4

Received a point for each of the following:

- Presence of Woodlands
- Presence of Woodland Interior
- Presence of NWI Wetlands
- Parcels with at least 1 acre of Forested Riparian Buffer

Also shown on the map are the location of PNDI sites and Important Bird Area-IBAs, but they are not counted.



DRAFT* Water Resources Summary Map *DRAFT

Brandywine Creek Greenway

Legend

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Brandywine Creek watershed
- Major Roads
- ~ Unclassified Water features
- Brandywine Creek Water Corridor and other Bodies of Water
- Protected Lands

Number of Water Resources (max. = 4)*

- 1
- 2
- 3
- 4

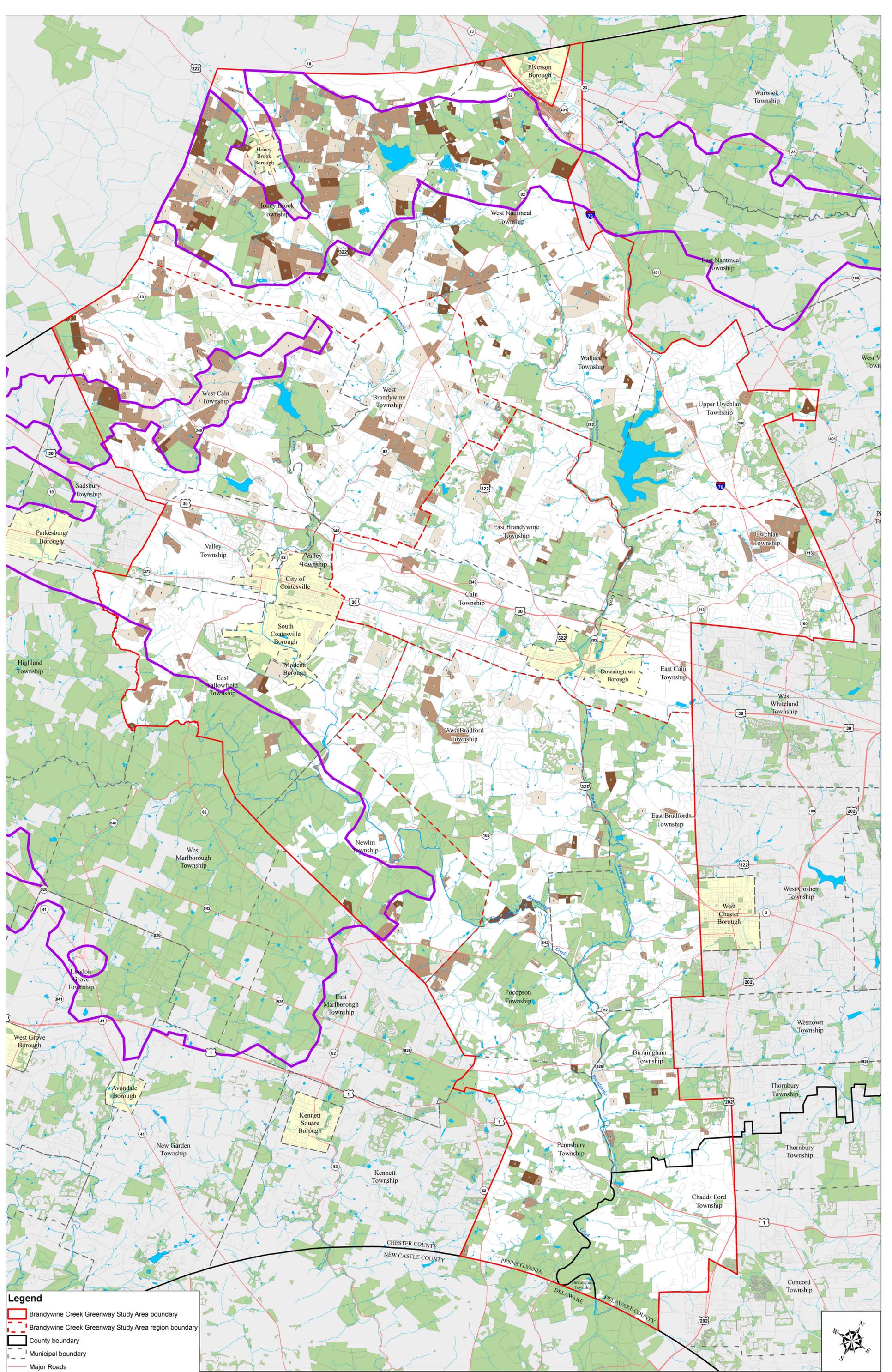
*Resources counted include:
 -100-year floodplain
 -Wetlands
 -1st-order streams
 -Parcel located within Special Protection Watershed (EV/HQ)



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



***DRAFT* Agricultural Resources Summary Map**

Brandywine Creek Greenway

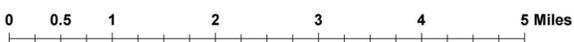
Legend

- 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

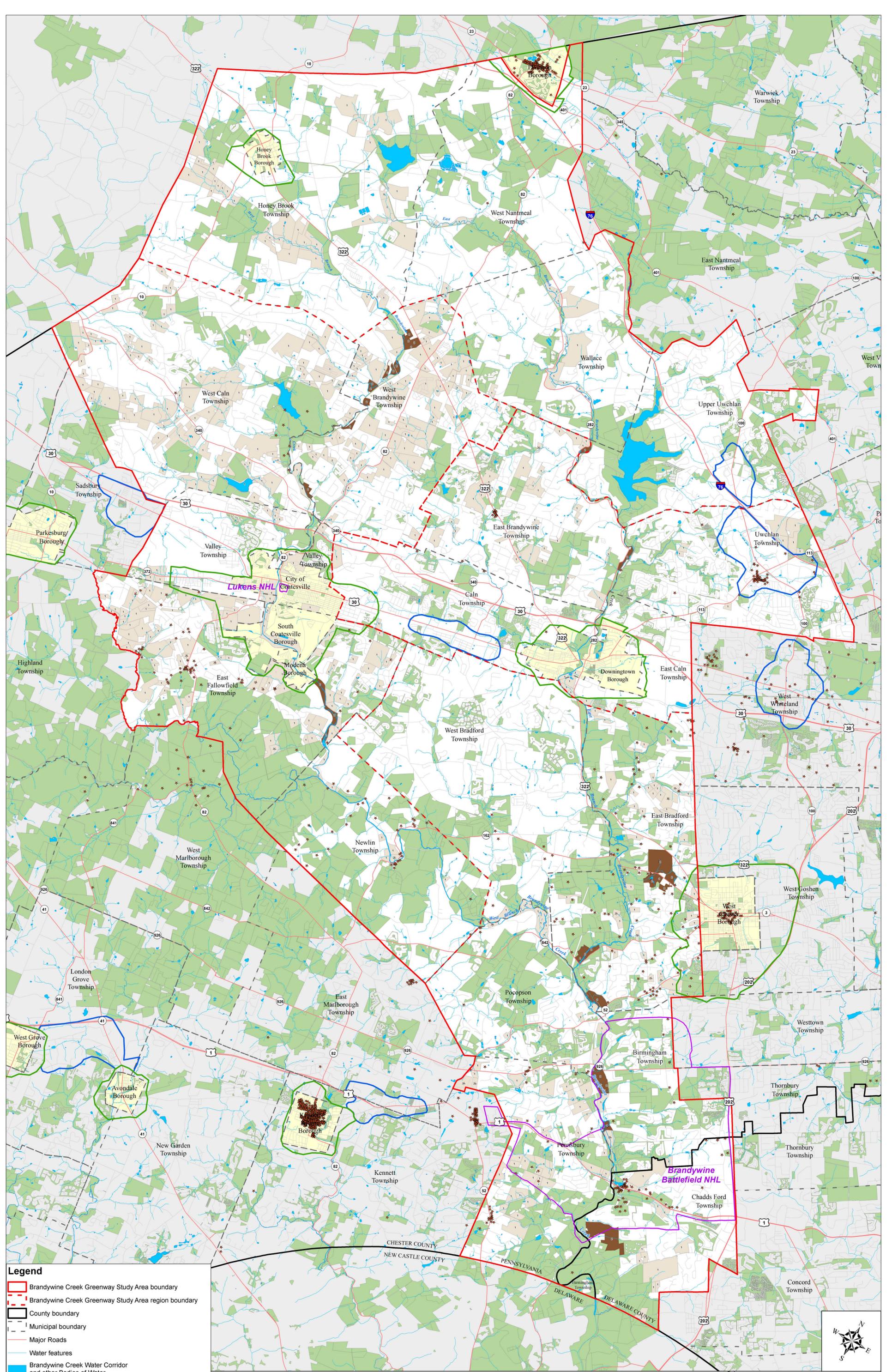
*Resources counted include:
 -Parcels with 50-75% prime agricultural soils
 -Parcels with 75% or greater prime agricultural soils
 -Adjacency to lands with conservation/agricultural easements



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



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
- National Historic Landmark boundary
- Landscapes: Suburban Center
- Landscapes: Urban
- Protected Lands
- * Parcel with historic resource(s)-Chester County Historic Atlas*

Number of Scenic Resources (max. = 3)^

- 1
- 2

^Resources counted include:
 -Unprotected parcels 10 ac. and greater adjacent to scenic roads
 -Unprotected parcels 10 ac. and greater adjacent to Brandywine Scenic Byway
 -Unprotected parcels with frontage on Brandywine Creek (10 ac. and greater or with vacant land use)

DRAFT* Cultural Resources Summary Map *DRAFT

Brandywine Creek Greenway



Data sources:
 Roads, Streams, Municipal boundaries
 Protected lands

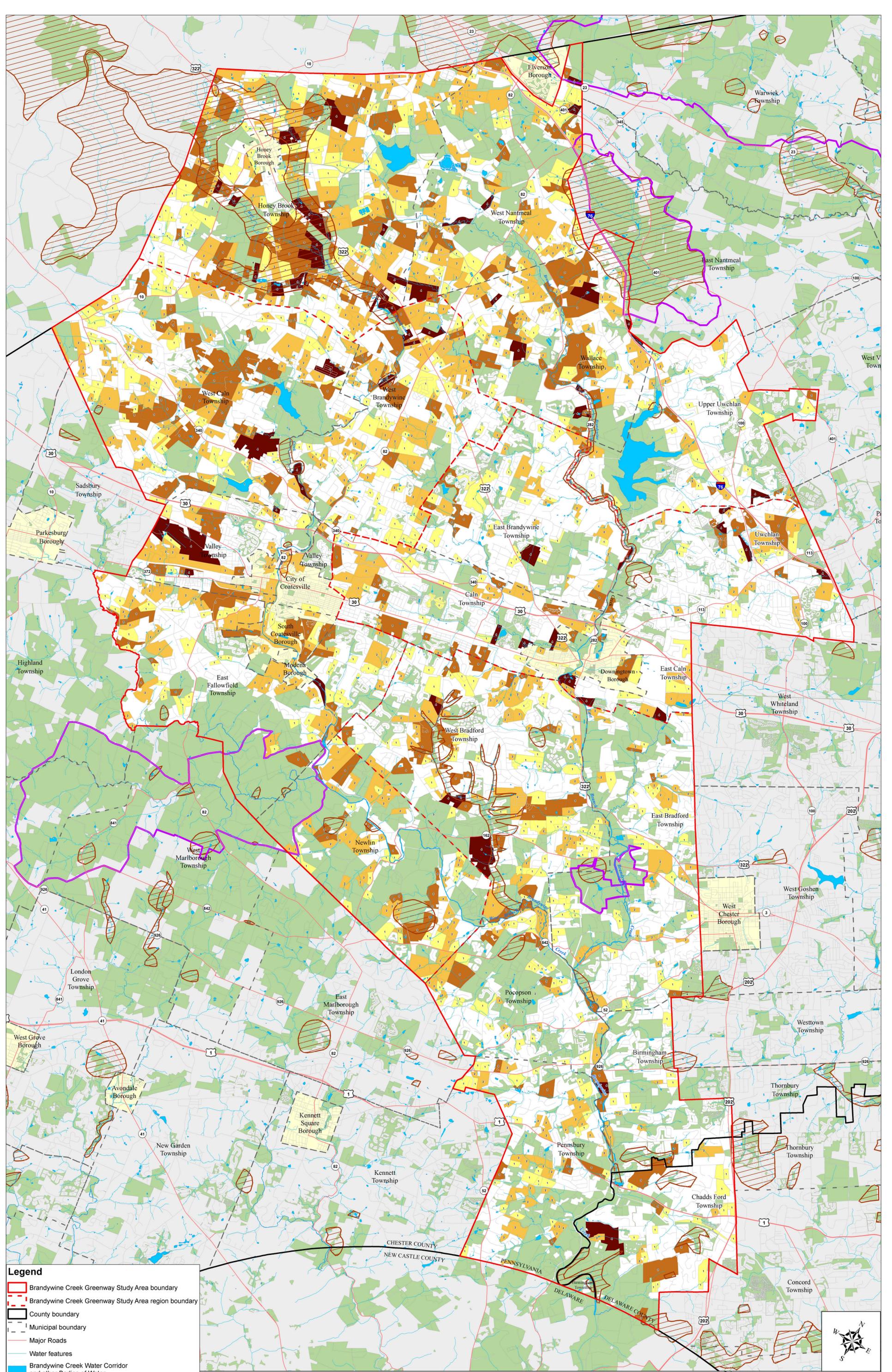
-Chester County GIS Department, 2012.
 -Delaware County GIS Department, 2012.
 -Chester County Planning Commission, 2013.
 -Delaware County GIS Department, 2011.

BRANDYWINE CREEK Greenway

BRANDYWINE CONSERVANCY

Map created: July 24, 2013

*Note: Star does not represent actual location of historic resource.
 Data source is from Chester County Historic Atlas, created by Chester County GIS Dept. and is still in process of being updated.
 All resources shown are classified as Class 1, which are on or eligible for the National Register.



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

Protected lands

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:

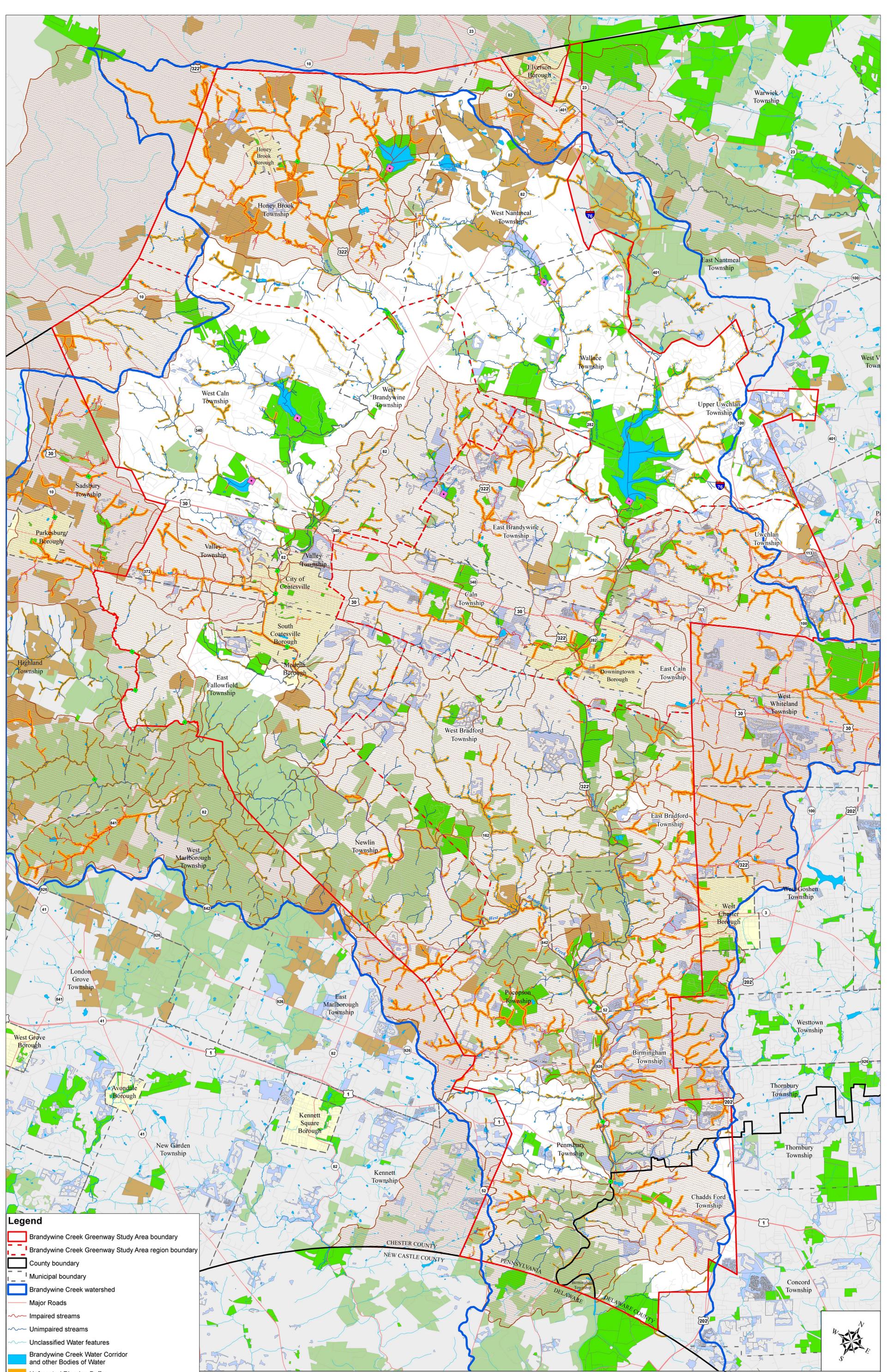
Water Restoration Opportunities

- 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

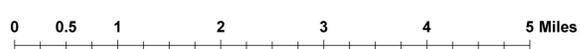
Woodland Interiors are woodlands with a minimum distance of 300' to the nearest edge. They are minimum 1 acre and greater, depending upon shape, and are critical for providing special breeding conditions for a number of species of birds and other small mammals. Reforestation of gaps between woodland 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

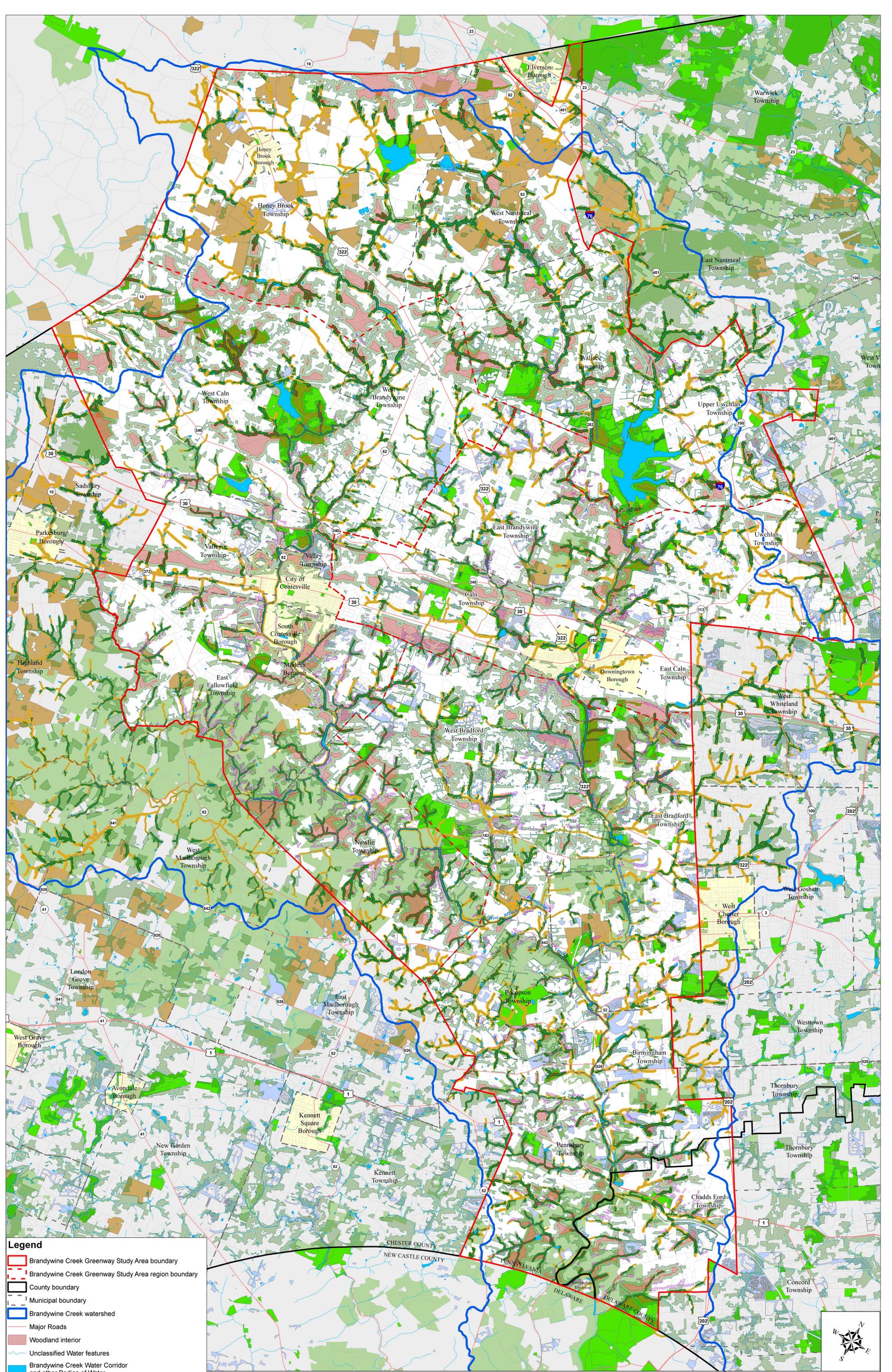
DRAFT* Water Quality Restoration Opportunities Map

Brandywine Creek Greenway



Data sources:
 Roads, Streams, Municipal boundaries
 Chester County GIS Department, 2012.
 Delaware County GIS Department, 2012.
 Chester County Planning Commission, 2013.
 Delaware County GIS Department, 2011.



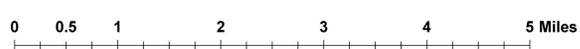


Legend

- 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



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: 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.

Project Code	Municipality/Agency
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	Inter-mediate	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	Inter-mediate	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 Durlans 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

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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

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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

brief property description; an outline of the proposed project; and an extensive discussion of the public benefit.

- Development Grants reimburse park facility and trail construction up to a maximum of 50% of a project's cost to a maximum of \$250,000 if outlined criteria are met (see Project Finances in Section II-before completing application). Maximum cumulative County construction funds for any one facility over the life of the facility are \$250,000, for parks less than 20 acres. Projects to develop parks that do not preserve land may not be funded.

Is a match required?

Generally 50%.

How to apply

Visit this page for guidance: <http://www.chesco.org/index.aspx?NID=1505>

When is the application period?

The most recent application deadline was February 28, 2014.

CHESTER COUNTY AGRICULTURAL PRESERVATION PROGRAM

<http://www.chesco.org/index.aspx?NID=1368>

Who is eligible to apply?

Landowners.

What types of projects are funded?

Easements on high-quality farmland located in an Agricultural Security Area consisting of 500 or more acres; be at least 50 acres in size, or 10 acres in size and adjacent to a preserved property; have at least 50% of the soils that are available for agricultural production and are of capability classes I-IV; contain the greater of 50% or 10 acres of harvested cropland, pasture, or grazing land.

Is there a maximum amount?

The funding limit is \$12,000 per acre.

Is a match required?

There is a local match minimum of 50%.

How to apply

Information on applying to sell an agricultural conservation easement can be obtained by contacting the office via phone, email, regular mail, or by visiting.

When is the application period?

Applications must be received by August 1st of each year. Check the website for updates.

CHESTER COUNTY VISION PARTNERSHIP PROGRAM

<http://pa-chestercounty.civicplus.com/DocumentCenter/View/15085>

The Vision Partnership Program is a planning grant available to local municipalities and multi-municipal regions seeking to improve their planning programs and achieve consistency with the goals, objectives, and policies of Landscapes2.

Who is eligible to apply?

The VPP grant is open to all Chester County municipalities. Eligible applicants include a single municipality, a group of two (2) or more contiguous municipalities, or a group of two (2) or more municipalities when located in the same school district. The application shall be submitted by a municipality or a designated lead municipality in the case of a multi-municipal application.

What types of projects are funded?

- Revisions to municipal plans, ordinances, and planning studies to achieve consistency with the principles of Landscapes2 and the County's Strategic Plan
- Innovative municipal planning to effectively manage growth in a manner consistent with Landscapes2
- Multi-municipal planning efforts that effectively address planning issues facing Chester County municipalities
- The use of professional planning expertise to address growth management and other planning issues at the municipal and multi-municipal level
- Funding to supplement the Chester County Planning Commission staff's ability to directly assist municipalities in the implementation of Landscapes2.

Is there a maximum amount?

Up to \$50,000 for comprehensive plans, revitalization plans, open space plans, and ordinances which are adopted under the provisions of the MPC.

Is a match required?

There is a local match minimum of 25%.

How to apply

Information on applying to sell an agricultural conservation easement can be obtained by contacting the Chester County Planning Commission via phone, email, regular mail, or by visiting.

When is the application period?

Application period is open.

Private Foundation Programs

WILLIAM PENN FOUNDATION

Who is eligible to apply?

Non-profit organizations. Governments are not generally funded, except in certain cases where there is no suitable tax-exempt organization to carry out a program or project.

What types of projects are funded?

- Develop and implement conservation and restoration models.
- Provide capital for land acquisition to promote conservation and protect water quality.
- Provide capital for stream restoration to restore water quality.
- Secure funds to complete "The Circuit," Greater Philadelphia's regional trail network.

CHESTER COUNTY COMMUNITY FOUNDATION

<http://www.chescocf.org/grants/grants%20home.htm>

Who is eligible to apply?

Non-profits in Chester County.

What types of projects are funded?

Program and operating funds.

Capital and endowment campaigns.

Capacity-building proposals.

Is there a maximum amount?

Grant awards typically range from \$500 – \$7,500.

Is a match required?

No.

How to apply

Read the guidelines and complete the application available here:

<http://www.chescocf.org/grants/grants%20home.htm>

When is the application period?

Proposals may be submitted any time throughout the year.

GEORGE AND MIRIAM MARTIN FOUNDATION

The focus of this foundation is river and watershed conservation. Visit <http://themartinfoundation.org/>

Who is eligible to apply?

Non-profits in Chester County.

What types of projects are funded?

There are no formal grant guidelines.

Is there a maximum amount?

Grant awards typically range from \$1,000 – \$150,000.

Is a match required?

No.

How to apply

If you are interested in a grant, please send a brief letter describing how a grant will help your organization preserve streams and wetlands.

When is the application period?

There are no deadlines.

Corporate Programs

PECO GREEN REGION GRANT

<http://www.natlands.org/services/for-municipalities/peco-green-region-program/>

Who is eligible to apply?

Any municipality within PECO's five-county service territory, including those in Chester County.

What types of projects are funded?

Developing or updating open space plans; improving municipal, organization, or authority-owned open spaces, including planning costs; acquisition of parcels to be used for open space; and acquisition of conservation easements.

Is there a maximum amount?

\$10,000.

Is a match required?

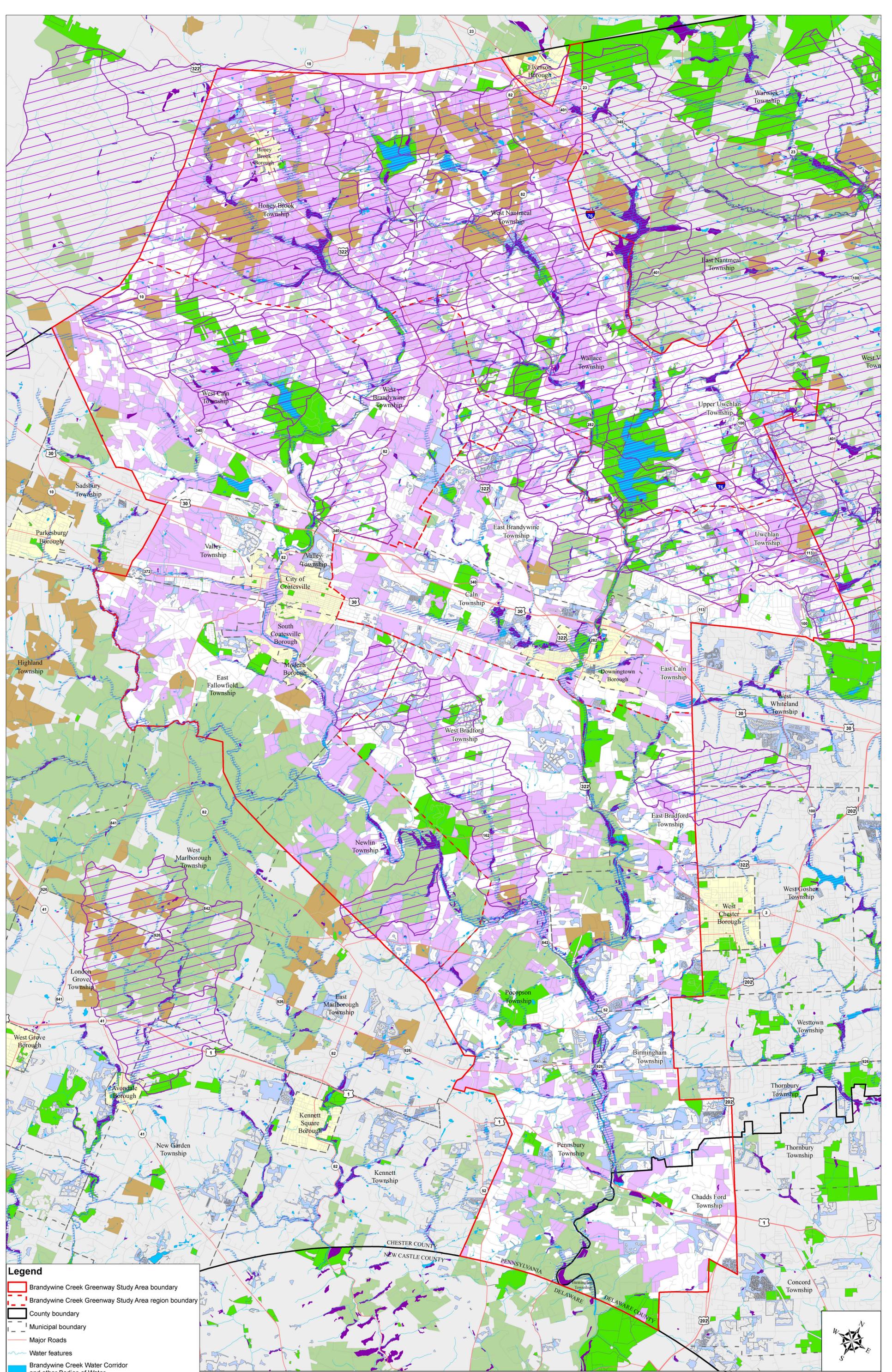
50% match.

How to apply

Visit the website for more details: <http://www.natlands.org/services/for-municipalities/peco-green-region-program/>

When is the application period?

The latest deadline was December 31, 2013.



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
- NWI Wetlands
- 100-year floodplain
- Unprotected parcels 10 ac. and greater
- Special Protection Watersheds (EV/HQ)
- Chester County agricultural easements
- Private lands eased or owned by land trusts
- Other protected lands (HOA, etc.)
- Public lands(Federal, state, county, municipal)

DRAFT* Water Resources Inventory Map *DRAFT

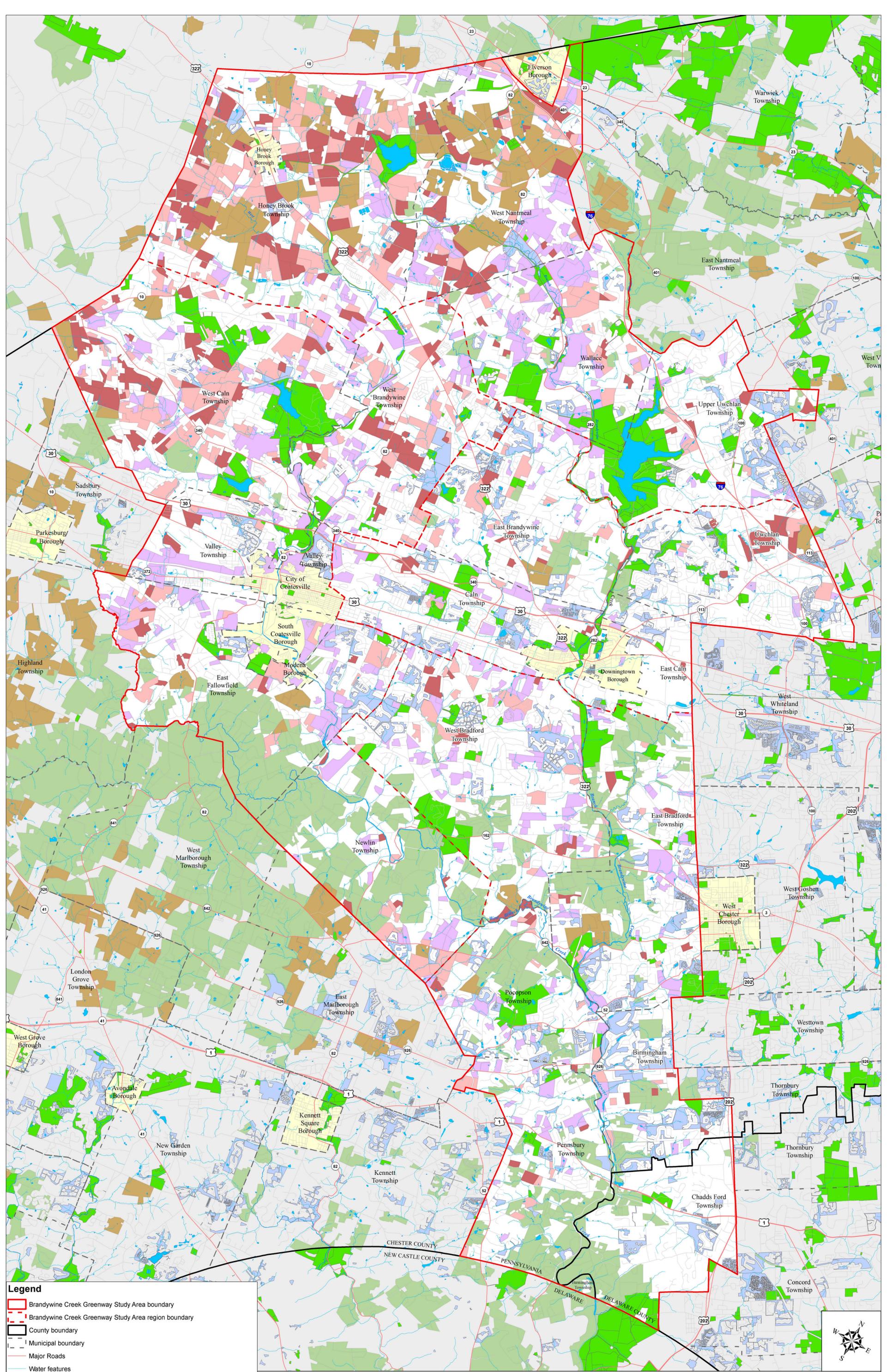
Brandywine Creek Greenway



Data sources:
 Roads, Streams, Municipal boundaries
 Chester County GIS Department, 2012.
 Delaware County GIS Department, 2012.
 Chester County Planning Commission, 2013.
 Delaware County GIS Department, 2011.
 Protected lands



Map created: July 24, 2013



- 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
 - Unprotected parcels 10 ac. and greater*
 - Unprotected parcels 10 ac. and greater with $\geq 50\%$ and $< 75\%$ prime ag. soils*
 - Unprotected parcels 10 ac. and greater with $\geq 75\%$ prime ag. soils*
 - Chester County agricultural easements
 - Private lands eased or owned by land trusts
 - Other protected lands (HOA, etc.)
 - Public lands (Federal, state, county, municipal)

***DRAFT* Agricultural Resources Inventory Map**

Brandywine Creek Greenway

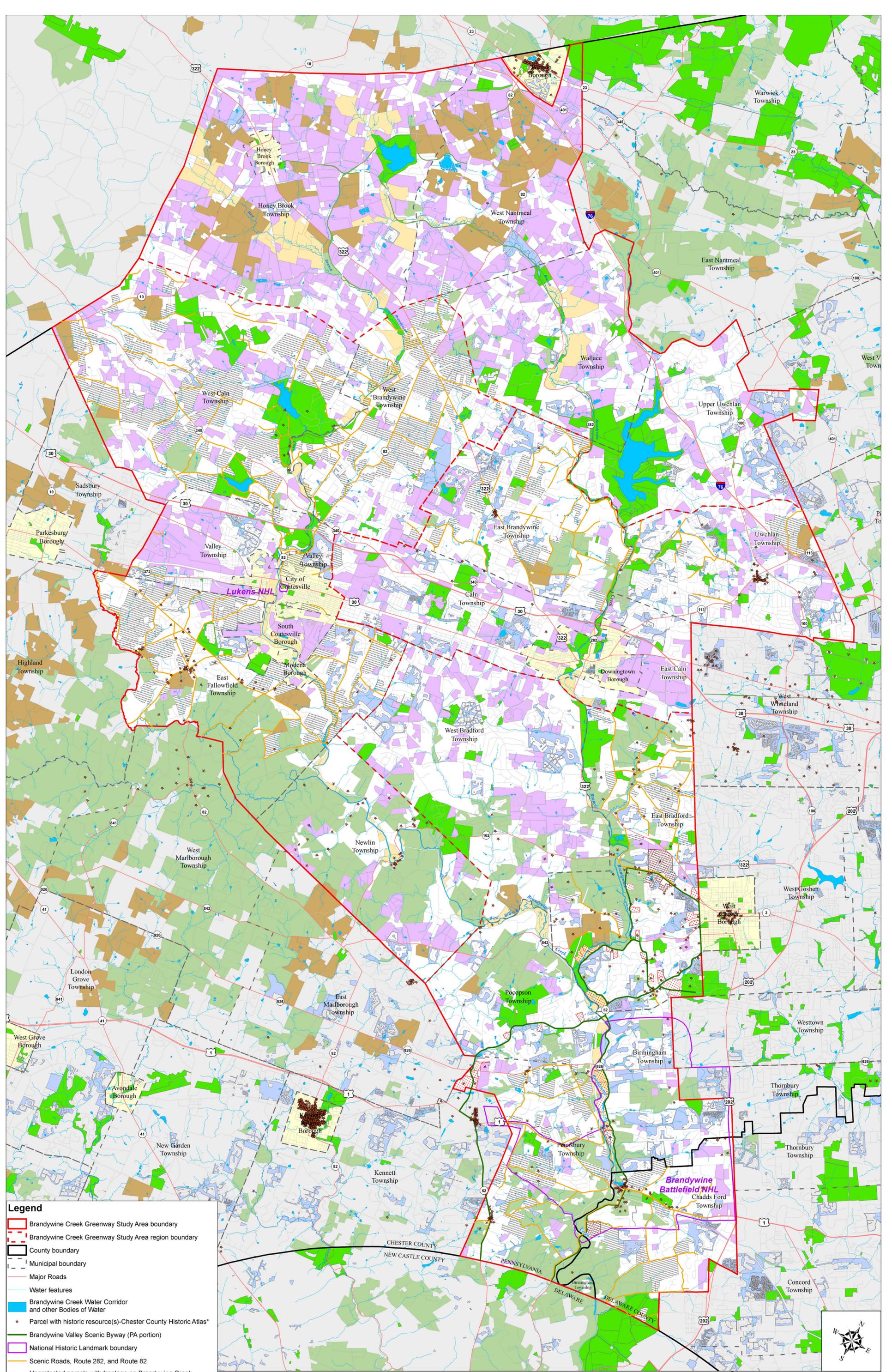


Data sources:
 Roads, Streams, Municipal boundaries
 Protected lands

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

Map created: July 24, 2013

*Note: Only parcels with County Land Use Designation of Agricultural, Farm, Vacant, or Residential



- 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
 - ★ Parcel with historic resource(s)-Chester County Historic Atlas*
 - Brandywine Valley Scenic Byway (PA portion)
 - National Historic Landmark boundary
 - Scenic Roads, Route 282, and Route 82
 - Unprotected parcels with frontage on Brandywine Creek (10 ac. and greater or with vacant land use)
 - Unprotected parcels 10 ac. and greater adjacent to Brandywine Scenic Byway
 - Unprotected parcels 10 ac. and greater adjacent to scenic roads
 - Unprotected parcels 10 ac. and greater
 - Chester County agricultural easements
 - Private lands eased or owned by land trusts
 - Other protected lands (HOA, etc.)
 - Public lands (Federal, State, County, Municipal)

DRAFT* Cultural Resources Inventory Map *DRAFT

Brandywine Creek Greenway

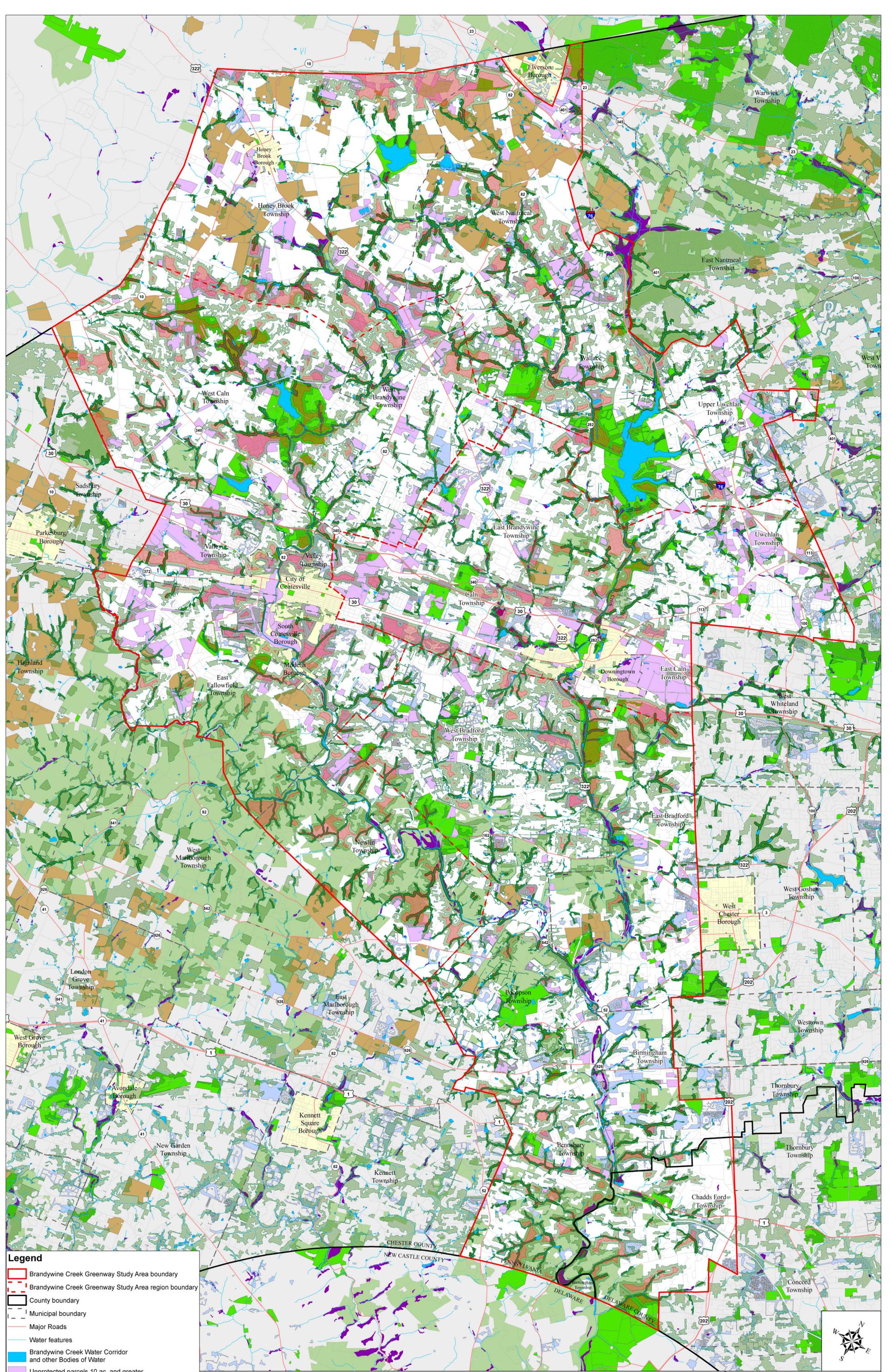
*Note: Star does not represent actual location of historic resource. Data source is from Chester County Historic Atlas, created by Chester County GIS dept. and is still in process of being updated. All resources shown are classified as Class 1, which are on or eligible for the National Register.



Data sources:
 Roads, Streams, Municipal boundaries
 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

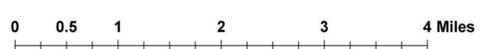


Legend

- 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
- Unprotected parcels 10 ac. and greater
- NWI Wetlands
- Woodlands
- Woodland interior
- Forested Riparian Buffer
- Chester County agricultural easements
- Private lands eased or owned by land trusts
- Other protected lands (HOA, etc.)
- Public lands(Federal, state, county, municipal)

DRAFT* Natural Resources Inventory Map *DRAFT

Brandywine Creek Greenway

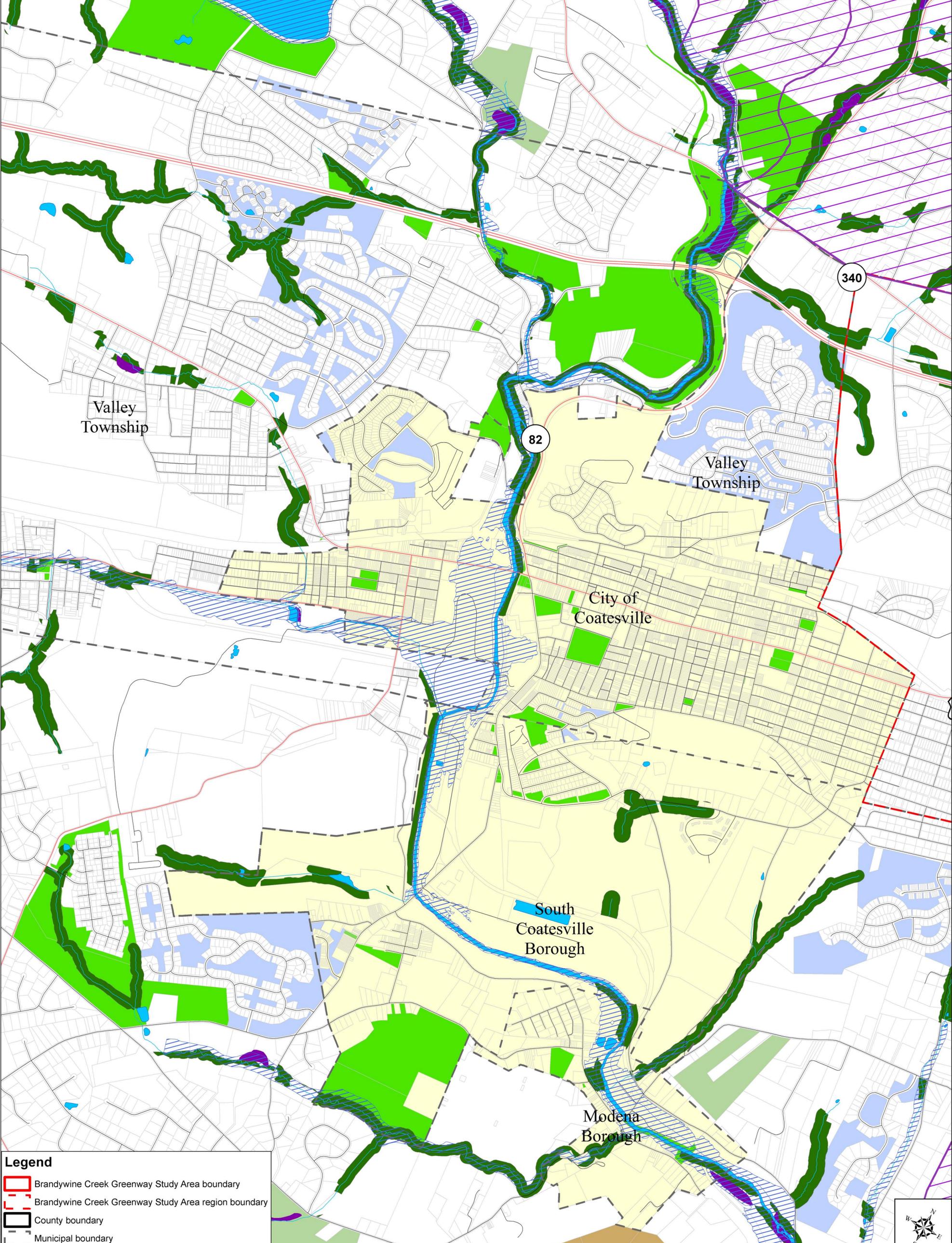


Data sources:
 Roads, Streams, Municipal boundaries
 Chester County GIS Department, 2012.
 Delaware County GIS Department, 2012.
 Chester County Planning Commission, 2013.
 Delaware County GIS Department, 2011.

Protected lands

Map created: July 24, 2013

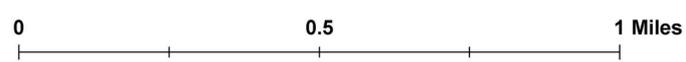




- Legend**
- Brandywine Creek Greenway Study Area boundary
 - Brandywine Creek Greenway Study Area region boundary
 - County boundary
 - Municipal boundary
 - Major Roads
 - Unclassified Water features
 - Brandywine Creek Water Corridor and other Bodies of Water
 - NWI Wetlands
 - 100-year floodplain
 - Tax parcels
 - Special Protection Watersheds (EV/HQ)
 - Chester County agricultural easements
 - Private lands eased or owned by land trusts
 - Other protected lands (HOA, etc.)
 - Public lands(Federal, state, county, municipal)

***DRAFT* Water Resources Inventory Map**

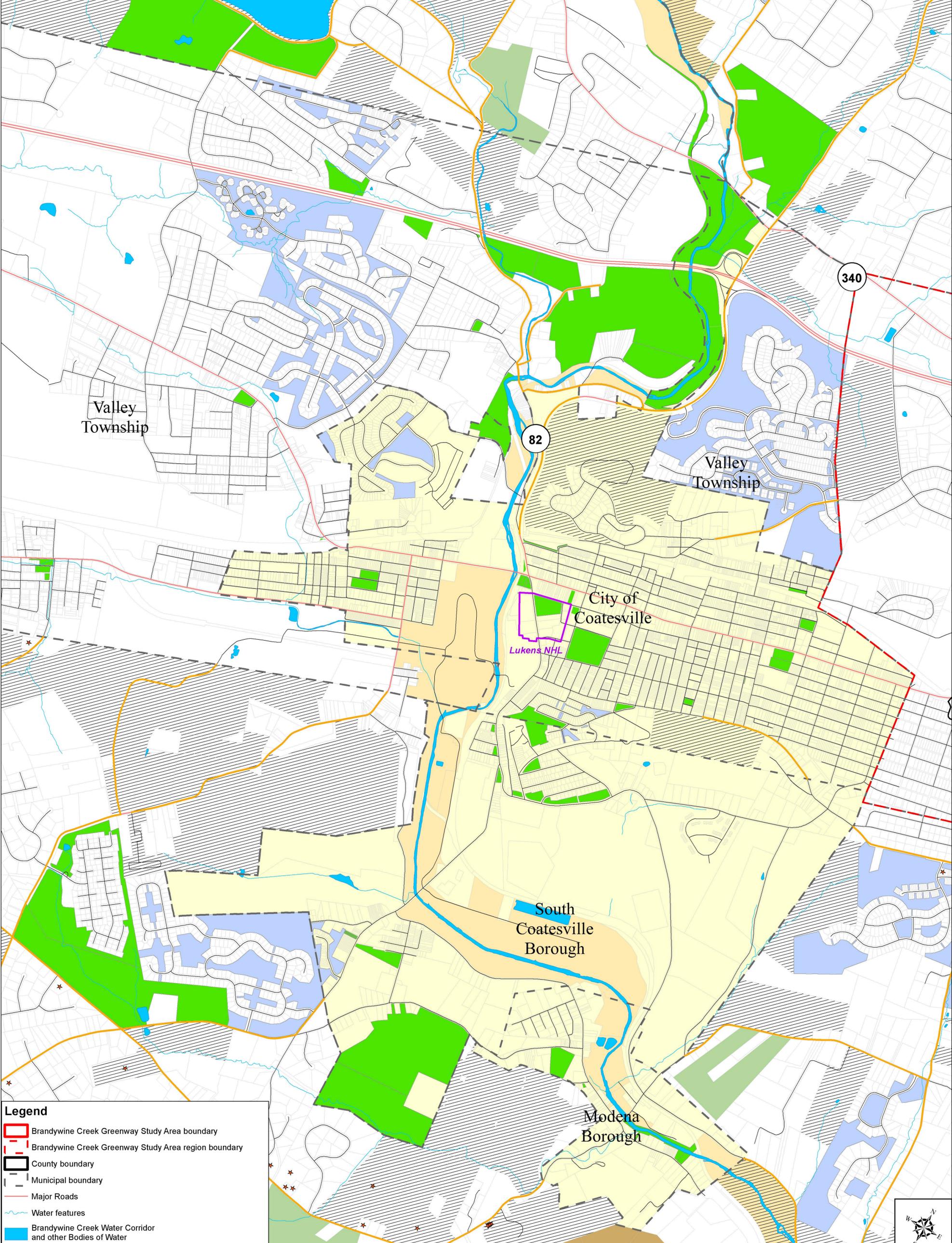
City of Coatesville, South Coatesville Borough, Modena Borough
Brandywine Creek Greenway



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.





- 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
 - Tax parcels
 - ★ Parcel with historic resource(s)-Chester County Historic Atlas*
 - Brandywine Valley Scenic Byway (PA portion)
 - National Historic Landmark boundary
 - Scenic Roads, Route 282, and Route 82
 - Unprotected parcels with frontage on Brandywine Creek (10 ac. and greater or with vacant land use)
 - Unprotected parcels 10 ac. and greater adjacent to Brandywine Scenic Byway
 - Unprotected parcels 10 ac. and greater adjacent to scenic roads
 - Chester County agricultural easements
 - Private lands eased or owned by land trusts
 - Other protected lands (HOA, etc.)
 - Public lands(Federal, state, county, municipal)

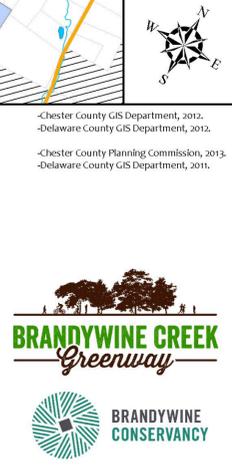
***DRAFT* Cultural Resources Inventory Map**

City of Coatesville, South Coatesville Borough, Modena Borough
Brandywine Creek Greenway



*Note: Star does not represent actual location of historic resource. Data source is from Chester County Historic Atlas, created by Chester County GIS dept. and is still in process of being updated. All resources shown are classified as Class 1, which are on or eligible for the National Register.

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: March 19, 2014



- 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
 - Tax parcels
 - NWI Wetlands
 - Forested Riparian Buffer
 - Woodlands
 - Woodland interior
 - Chester County agricultural easements
 - Private lands eased or owned by land trusts
 - Other protected lands (HOA, etc.)
 - Public lands(Federal, state, county, municipal)

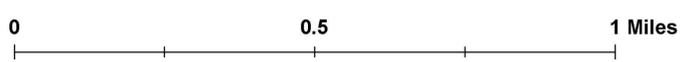
Data sources:
 Roads, Streams, Municipal boundaries
 Protected lands

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

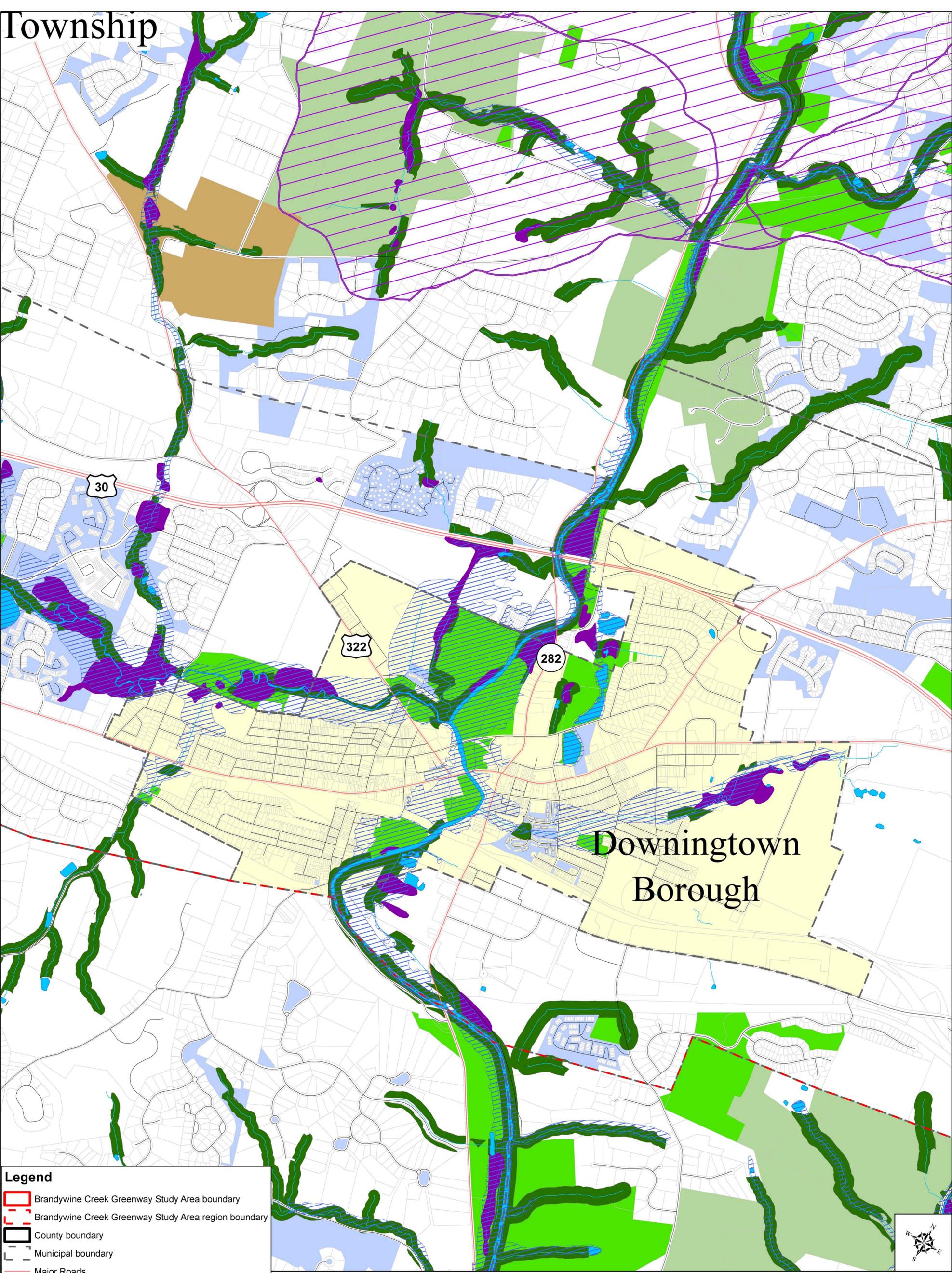


DRAFT Natural Resources Inventory Map

City of Coatesville, South Coatesville Borough, Modena Borough
 Brandywine Creek Greenway



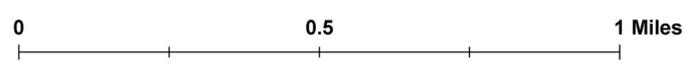
Township



- Legend**
- Brandywine Creek Greenway Study Area boundary
 - Brandywine Creek Greenway Study Area region boundary
 - County boundary
 - Municipal boundary
 - Major Roads
 - Unclassified Water features
 - Brandywine Creek Water Corridor and other Bodies of Water
 - NWI Wetlands
 - 100-year floodplain
 - Tax parcels
 - Special Protection Watersheds (EV/HQ)
 - Chester County agricultural easements
 - Private lands eased or owned by land trusts
 - Other protected lands (HOA, etc.)
 - Public lands(Federal, state, county, municipal)

DRAFT Water Resources Inventory Map

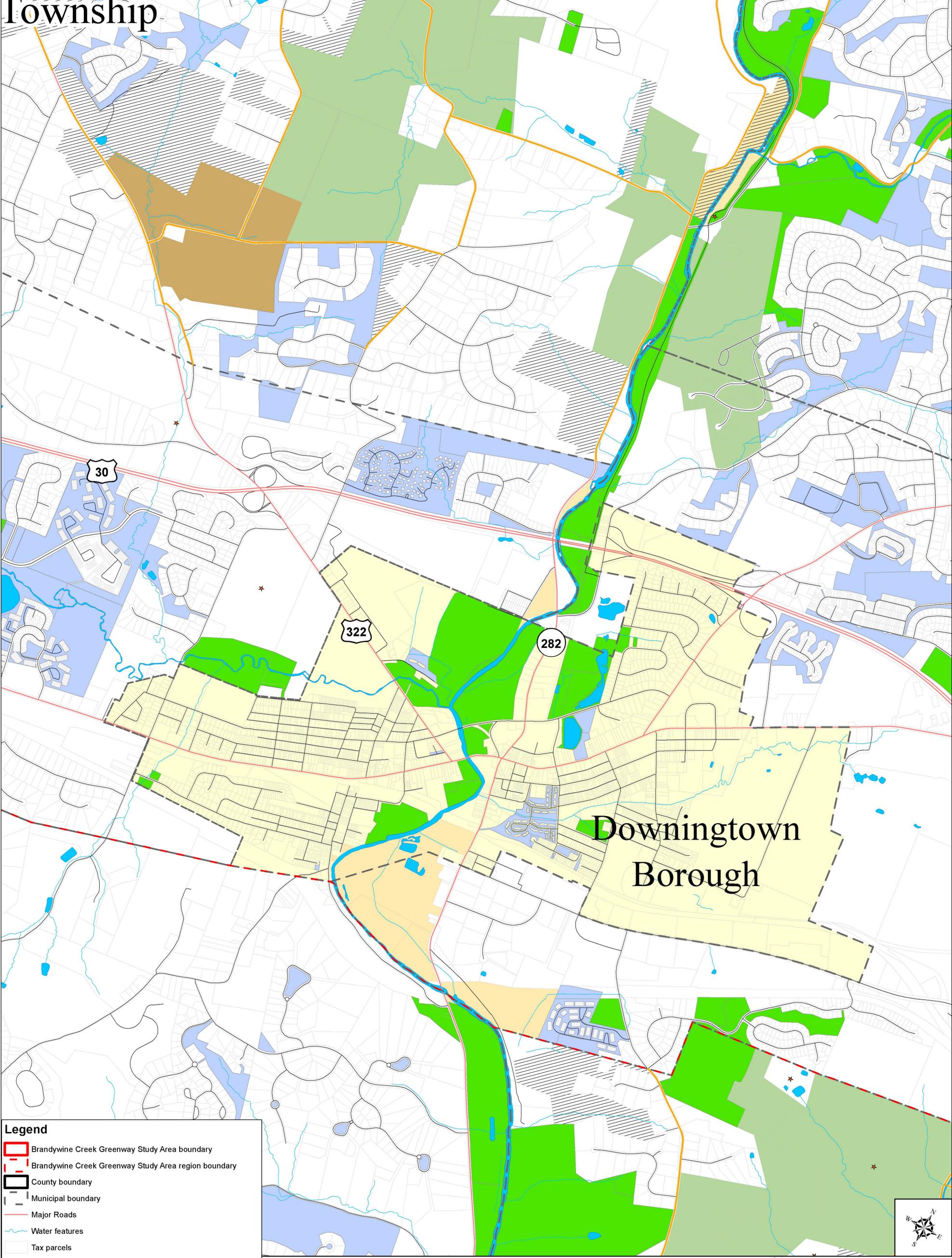
Downingtown Borough
Brandywine Creek Greenway



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.



Map created: March 19, 2014



Legend

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Major Roads
- Water features
- Tax parcels
- Brandywine Creek Water Corridor and other Bodies of Water
- ★ Parcel with historic resource(s)-Chester County Historic Atlas*
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- Scenic Roads, Route 282, and Route 82
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- Chester County agricultural easements
- Private lands eased or owned by land trusts
- Other protected lands (HOA, etc.)
- Public lands(Federal, state, county, municipal)

DRAFT Cultural Resources Inventory Map

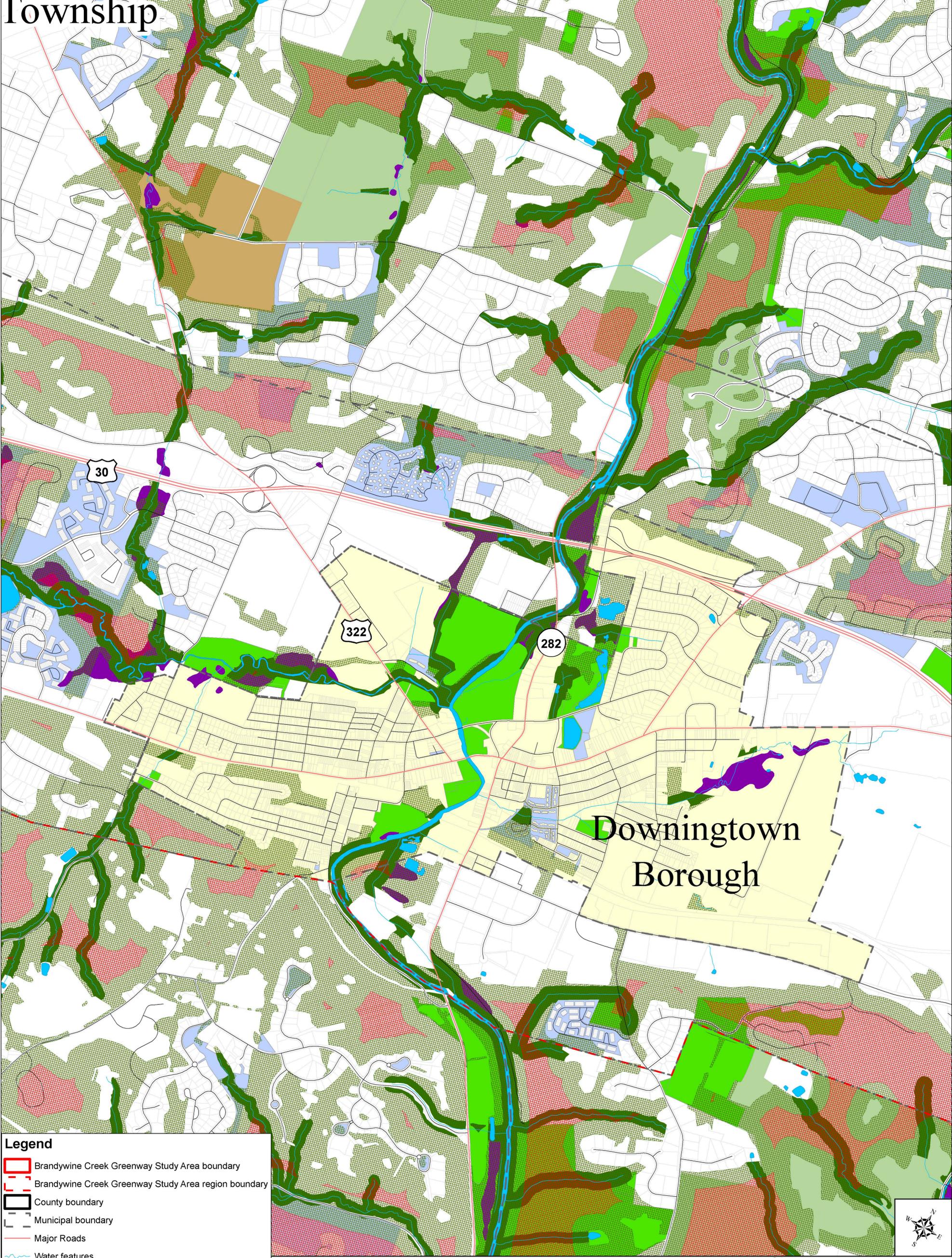
Downingtown Borough
Brandywine Creek Greenway



Data sources:
 Roads, Streams, Municipal boundaries
 -Chester County GIS Department, 2012.
 -Delaware County GIS Department, 2012.
 -Chester County Planning Commission, 2013.
 -Delaware County GIS Department, 2011.



Township

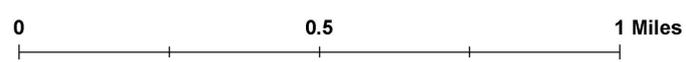


Legend

- Brandywine Creek Greenway Study Area boundary
- Brandywine Creek Greenway Study Area region boundary
- County boundary
- Municipal boundary
- Major Roads
- ~ Water features
- Tax parcels
- Brandywine Creek Water Corridor and other Bodies of Water
- NWI Wetlands
- Woodland interior
- Woodlands
- Forested Riparian Buffer
- Chester County agricultural easements
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- Other protected lands (HOA, etc.)
- Public lands(Federal, state, county, municipal)

DRAFT Natural Resources Inventory Map

Downingtown Borough
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.

