Commercial Landscapes Series

Stimulating Community Revitalization Through Brownfields





Table of Contents

4
5
7
7
9
11
15
16
17
20
22
24

Published April 2017



Chester County Board of Commissioners

Michelle Kichline Kathi Cozzone Terence Farrell

Acknowledgements - Task Force and Partners

Municipality Representatives

Zach Barner, Tredyffrin Township
Steven Brown, East Whiteland Township
Derek Davis, West Goshen Township
Mimi Gleason, West Whiteland Township
Scott Greenly, East Whiteland Township
Jean Krack, Phoenixville Borough
Joe Scalise, Kennett Square Borough
Steve Sullins, Downingtown Borough
James Thomas, Parkesburg Borough
Mike Trio, City of Coatesville
Karen Versuk. Penn Township

Developer Representatives

Dan Daley, E.B. Walsh & Associates, Inc.
George Hasenecz, Brandywine Realty Trust
Eli Kahn, E Kahn Development
James Mazzarelli, Liberty Property Trust
Tony Nichols, Liberty Property Trust
Mike Pia Jr., Kennett Square Realty
Timothy Smith, Pennsylvania Real Estate
Investment Trust

Rich Wilson. Arcadia Land Company

Consultant Representatives

David Brant, Organizational Leadership/SRA
John Fessick, Wells Fargo

Mike Fili, Aqua America

Tom Barton, Barton Partners

John Lister, JL Architects

Agency Representatives

Pat Bokovitz, Chester County Department of Community Development

Guy Ciarrocchi, Chester County Chamber of Business and Industry

Dottie Ives-Dewey, West Chester University

MaryFrances McGarrity, Chester County Economic Development Council

John Meisel, Transportation Management Association of Chester County

Ashley Orr, Chester County Health Department

Roger Richardson, Chester County Chamber of Business and Industry

Donna Siter, Western Chester County Chamber of Commerce

Andrew Svekla, Delaware Valley Regional Planning Commission

Chester County Planning Commisson Board

Matthew Hammond, P.E., Chairman

Douglas Fasick, Vice-chairman

Danial DiMucci, RLA, ASLA

Judy DiFilippo

Michael Heaberg

Kevin Kerr

Molly Morrison

E. Martin Shane

Joseph Tarantino

Chester County Planning Commisson Participating Staff

Brian O'Leary, AICP, Executive Director

David Ward, AICP, Assistant Director

Susan Elks, AICP, Planning Services Director

Jaime Jilozian, AICP, Community Planner

Sean O'Neil, AICP, Community Planner

Justin Smiley, AICP, Urban Planner

Rachel Griffith, RLA, Transportation Planner

Madeline Schueren, GIS Planner

Diana Zak, Graphics Supervisor

Chris Bittle, Graphics Specialist

Polly Chalfant, Graphics Specialist

Liz Kolb, Graphics Specialist

Purpose

This document is one of four in a planning series known as "Commercial Landscapes" (Office Parks, Transit Oriented Development (TOD), Brownfields, and Greyfields). The series serves as a collaborative effort between county agencies and county stakeholders focused on improving critical commercial areas located throughout the county. The goal is to provide a planning tool that offers guidance to municipal officials, professional planners, developers, and property owners about how to maximize the value of these commercial areas today and in the future to better implement the goals in municipal and county policy documents (Landscapes2, the County's Comprehensive Plan and VISTA 2025, the County's Economic Development Strategy). This series will also play a major role as a planning tool for Landscapes3, the County Comprehensive Plan update.

This document presents a set of guidelines and strategies to assist in the rejuvenation of brownfield sites for communities in Chester County. The purpose is to highlight the importance of brownfield revitalization and provide guidance and processes on how to redevelop brownfield sites.





The above imagery shows before and after photos of new residential and mix-use developments on a remediated steel site in Phoenixville Borough. Google Earth, 2017



Riverworks Apartments (300+ units) in Phoenixville is an example of how municipalities in Chester County have redeveloped brownfield sites.

What is a brownfield?

66 Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. ??

- Environmental Protection Agency ▶



The Wyeth Property, 31 acre former manufacturing site in West Chester Borough

Brownfields are not always an old steel mill or, a former chemical or manufacturing facility, as we typically picture. A brownfield site can be abandoned buildings, former lumber yards, vacant storefronts, old dry cleaners, former gas stations or former auto body shops.

The EPA estimates that more than 450,000 brownfields are located across the country, with the majority of them located in the former industrial/manufacturing "Rust Belt" states.

Many of these properties are old manufacturing

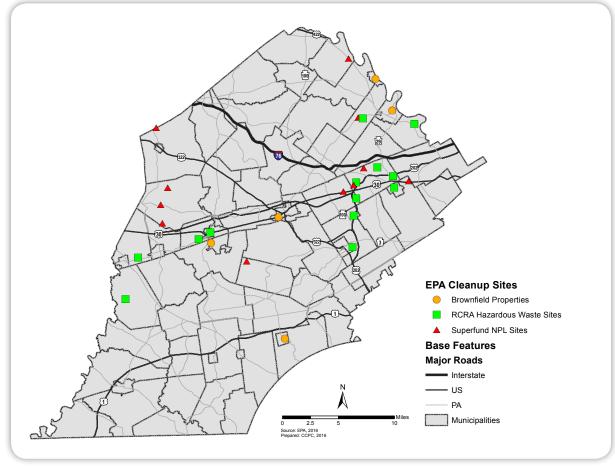
sites, which closed down in the mid to late 1900s and over time became vacant, deteriorated tracts of land that pose quality of life concerns for those living and working in their vicinity. Cleaning up and investing in these sites protects the environment, reduces blight, and helps take development pressure off undeveloped lands, while encouraging economic development.

The EPA has documented 29 clean-up sites in Chester County through the following programs: Brownfields, RCRA Hazardous Waste, and Superfund NPL, as shown in the map. These sites have been remediated and are already developed, as shown in the map and/or awaiting redevelopment. These sites and others identified as part of the PA Department of Environmental Protection (PADEP) Act 2 Land Recycling Program are located throughout the county, but are not currently under redevelopment. The lack of reuse options, clean-up costs, liabilities, and the overall process are challenges when redeveloping these sites, despite often having prime locations. The majority of these locations are large tracts of land within or just outside the county's urban centers where an increase of 32,115 people is projected and 13,649 new jobs are forecasted by 2045 (DVRPC Forecasts, 2016). Planning for redevelopment of these sites would not only assist in accommodating the population growth, but would also help to encourage new development in the areas where public infrastructure exists, while preserving county open space. Mixed-use development options that adhere to and expand existing community character, identity and commerce are preferred redevelopment options for many of these brownfield sites.

The lack of reuse options, clean-up costs, liabilities, and the overall process are challenges when redeveloping these sites, despite often having prime locations. Redevelopment of these sites could assist in accommodating the projected population growth, could also help to encourage new development in the areas

where public infrastructure exists, and may also relieve development pressure on the County's remaining green fields. Mixed-use development options that embrace and expand existing community character, identity and commerce are often the preferred redevelopment option for these brownfield sites.

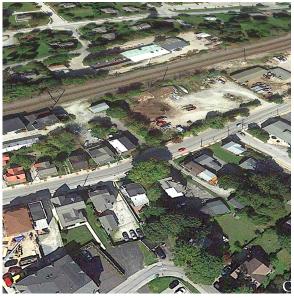
EPA Cleanup Sites, located in Chester County



Source: EPA, 2016

The Benefits of Brownfield Redevelopment

Remediating and facilitating investment into brownfields increases the economic value of the site and surrounding area. The following list shows several ways brownfield redevelopment can benefit a municipality.





The above imagery shows before and after photos of the East Side Flats mixed-use development along East King Street in Malvern Borough. Google Earth, 2017.

- Stimulates new investments in underutilized properties in a community. EPA has shown that for every \$1 of public funds invested in brownfields, \$2.48 in private investment is leveraged at the same site.
- Increases local tax base and promotes job creation, establishment of community social spaces, and housing options. A U.S. Conference of Mayors survey indicated that 83,000+ jobs had been created from former brownfield sites in 71 cities.
- Utilizes existing infrastructure and developed lands, which can relieve potential development pressure on "greenfields". EPA has shown that for every 1 acre of redeveloped brownfield, an estimated 4.5 acres of greenfields is conserved from sprawl development.
- Improves public safety and quality of life by developing abandoned, underutilized, and contaminated sites into safer more attractive places.



East Side Flats is an example of how an underutilized property in an urban area can increase the local tax base and establish community social spaces.

Overall Challenges/ Issues

Perceptions

- Brownfield sites are often associated with blight, crime, health and safety risks, low property values, and environmental concerns. While these perceptions may be valid, they can be dispelled once a developer and/ or municipality realizes the potential for redevelopment of the site.
- The degree of site contamination can be perceived as a large hurdle when redeveloping a brownfield site, although some sites are less contaminated than others, which makes the redevelopment process a lot less difficult when going through environmental assessments and reviews. The reuse potential of a brownfield site is typically assessed based on contamination levels and market demands. A reuse that involves a capped site versus soil remediation has less clean-up time and thus less redevelopment time.

Costs

 What are the general, pre-development costs for making redevelopment feasible on a brownfield? The highest and best use for a brownfield site is considered through evaluating the environmental and market factors prevailing on a site. Analysis is critical in determining the highest and best use and includes the following in the graphic below:

Brownfield Site Critical Steps Evaluation



• Costs can be difficult to estimate and can be more than the property value itself, depending upon the type of contamination on the site. All sites must be evaluated on a case-by-case basis. Clean-up costs are generally based on a remedial action plan and depend upon the type, quantity, and toxicity of the contaminants at the site.



NVF Property, Kennett Square Borough

Clean-up levels for redevelopment

 Clean-up activities can take longer than a typical real estate development timeline.
 The Pennsylvania Department of Environmental Protection (PA DEP) has established three different clean-up standards for a brownfield redevelopment project. Remediation may involve the Background Standard, Statewide Health Standard, or the Site Specific Standard.

Background standard: A person choosing to clean up a site to the background standard must document that the concentration of any contaminants remaining are not related

to any release of regulated substances at the site. This often applies to a site where contamination has come onto the site from a nearby property.

Statewide health standard: Statewide health standards for contaminants for each environmental medium. These standards are derived from medium-specific chemical concentrations based upon acceptable cancer and systemic health risks. The standards account for use and non-use groundwater, as well as residential and nonresidential exposure factors at a site.

Site specific standard: This standard allows the remediator to consider exposure and

risk factors to establish cleanup levels appropriate for the intended use of a particular site. This approach is a more detailed process that involves developing a risk assessment based on the conditions and human exposures at the site. The risk based approach is based on: site characterization, exposure assessment, toxicity assessment, and risk characterization.

 Remediations may involve one or a combination of standards, but it is important to note that the individual or entity performing the cleanup makes the choice of which standards to follow.

Long-term liability and financing

- Environmental conditions and ownership history determine potential liabilities, which could deter developers and financers from redeveloping these sites. These liabilities have been reduced due to policies in PADEP's Act 2 Land Recycling Program and EPA's Brownfield Program. This is important as banks and private lenders will require environmental assessment approvals as prerequisites to funding a project.
- Financing brownfield redevelopment may include multiple funding sources with a mixture of grants at different government levels, loans, investments, and tax incentives —all having different guidelines and deadlines making it difficult to manage a variety of requirements.



Overview of Brownfields in Chester County

County brownfields assessment

The EPA has designated 592 brownfield sites in Chester County, as shown on page six.

County municipalities are also participating in a voluntary cleanup and reuse program known as the PADEP Act 2 Land Recycling

Program. ➤ This program encourages voluntary cleanup and reuse of sites like brownfields and returning them to productive uses once again. It provides uniform cleanup standards, liability relief, standardized reviews, time limits and financial assistance to assist in the remediation of a site.

Presently, in Chester County all but ten municipalities have participated in identifying sites, which have been documented with either soil and/or water contamination, see map. These Act 2 sites, particularly where they are in large clusters, were evaluated to see what policies, regulatory standards and market trends are associated with potential redevelopment in these areas.

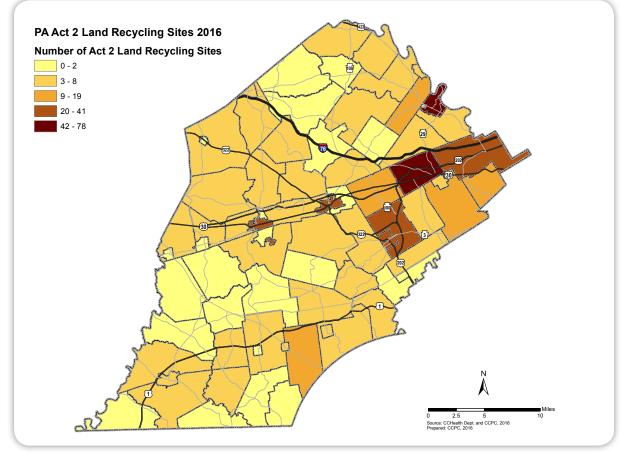
PA Act 2 Land Recycling Sites in Chester County PA Act 2 Land Recycling Sites 2016 PA Act 2 Sites **Base Features** Major Roads Interstate Municipalities

Source: Chester County Health Department, 2016

Comprehensive plan and zoning assessment

Many of the municipalities included in this analysis do not include recommendations for brownfield sites in their comprehensive plans, but may show these sites within identified growth areas on future land use plans. Since the Act 2 program is a voluntary program, a comprehensive list of sites may not have been identified due to the age of the policy document or lack of coordination between private land owners and the municipality. Many of these sites are located in Chester County's urban and suburban centers, as show on the following map:

Number of PA Act 2 Land Recycling Sites in Chester County



Source: Chester County Health Department, 2016

Zoning ordinance assessment

An analysis of municipal zoning districts indicates that 162 sites were located within districts categorized as industrial, while 154 sites were located in districts categorized as residential, as shown in the following map and Table 1. This analysis demonstrates that redevelopment of these sites would provide a mixture of uses but might require zoning changes and regulatory updates for many of the sites.

Master planning and providing a variety of development options would help market these sites for redevelopment. A master planning process would aid municipalities in reviewing and inventorying sites for potential reuse.

EPA Cleanup Sites, located in Chester County

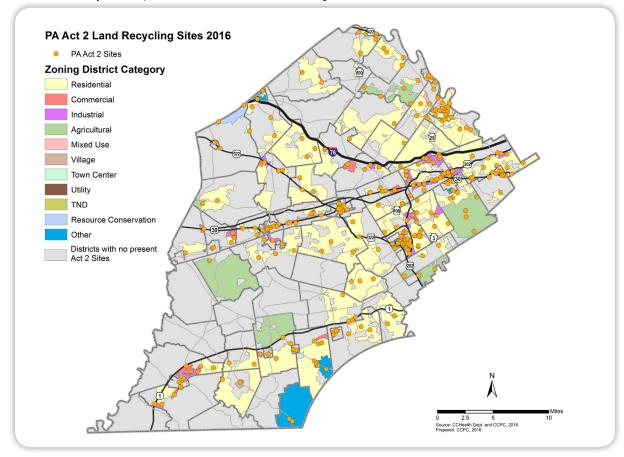


Table 1: Existing zoning of Chester County Act 2 sites

Zoning District Category	Count	Zoning District Category	Count
Industrial	162	Utility	11
Residential	154	Village	8
Commercial	99	Rural	6
Mixed use	64	Traditional Neighborhood Develeopment	5
Town Centers	29	Corridor Development	5
Agricultural	15	Other*	37

Source: Chester County GIS Zoning Districts, 2016. *13 additional zoning district categories with 1 to 4 Act 2 sites

Population and market assessment

ESRI's Business Analyst is a GIS-based subscription service providing economic data, customer profiling, and market analysis. This tool was used to show the demographics, household lifestyles or Tapestry Segmentations ▶ as well as, the market supply and demand for six areas (2 mile radius) where there are large clusters of Act 2 sites (Coatesville, Downingtown, Easttown/Tredyffrin, East Whiteland/Malvern, Phoenixville and West Chester/West Goshen). ESRI's Tapestry Segmentation is divided into 67 Lifemode Segments. These segments represent accurate detailed descriptions of America's neighborhoods based on their socioeconomic and demographic composition.

Table 2 shows basic demographics for the six areas. Table 3 shows the main U.S. Lifemode Segment in each train station area with corresponding information about each segment and a report. This analysis is important as it speaks to both a geographical housing and a cost of living trend that exists in the county. These sites are located in prime locations, where many people desire to live and work, so their redevelopment is crucial to accommodating predicted population growth.

The area reports, when summarized indicate that both Generation Y and X (median age 21-40) have the largest presence in the County's urban areas, accounting for 66-83% of households. Older Generation X and Baby Boomer demographics (median age 42-62+) have a larger presence in the West Chester/ West Goshen, East Whiteland/Malvern, and Easttown/Tredyffrin, areas accounting for (34-82% of households).

Table 2: Chester County Act 2 areas: Demographics

Area (2 mile radius)	Population	Households	Median Disposable Income	
Coatesville	27,683	9,754	\$42,921	
Downingtown	20,984	8,170	\$58,281	
Easttown/Tredyffrin	26,407	10,475	\$81,178	
East Whiteland/Malvern	15,049	5,828	\$73,002	
Phoenixville	26,592	11,097	\$53,812	
West Chester/West Goshen	39,419	14,253	\$53,638	

Source: ESRI Business Analyst: Tapestry Segmentation Data, 2016

Table 3: Chester County Act 2 areas: US Tapestry Segmentation

		Lifemode Segment References			
Area (2 mile radius)	Lifemode Segment #1 (% of households)	Median Age	Housing Preference	Median Household Income*	Report Link
Coatesville	Fresh Ambitions ► (17.3)	28.0	Rent MF homes	\$26,000	Report ▶
Downingtown	Professional Pride ► (15.6)	40.5	Own SF Homes	\$127,000	Report ►
Easttown/Tredyffrin	Top Tier ▶ (42.2)	46.2	Own SF Homes	\$157,000	Report ►
East Whiteland/Malvern	City Lights ► (22.3)	38.8	Own or Rent SF or MF Homes	\$60,000	Report ▶
Phoenixville	Emerald City ► (17.8)	36.6	Own or Rent SF or MF Homes	\$52,000	Report ►
West Chester/West Goshen	Emerald City ► (13.2)	36.6	Own or Rent SF or MF Homes	\$52,000	Report ►

Source: ESRI Business Analyst: Tapestry Segmentation Data, 2016

^{*} Median Household Income is the U.S. average income for the corresponding lifestyle group.

The Vision for Brownfields in Chester County

Brownfields in Chester County will be transformed into environmentally-safe redevelopment areas that act as an economic development catalyst for the community's future vision. Streamlined processes will implement brownfield redevelopment to encourage the reuse of existing infrastructure, create a sense of place, and enhance the quality of life for residents.



How Do We Get There?

This section highlights the steps and strategies on how to redevelop a brownfield site successfully. There are three areas of guidance which include the organizational approach, regulatory guidance, and physical improvements needed when redeveloping brownfield sites.

Organization

- Strategies for promoting site reuse
- Steps to site remediation
- Tools and programs to use

Regulatory Guidance

- Update zoning and streamline the review process
- Allow for diverse uses and building types

Physical improvements (Placemaking & Connectivity)

- Support infrastructure to serve larger community
- Tools and programs to use

Organization

Strategies for promoting site reuse

Identify and involve stakeholders through meaningful community engagement. Stakeholders include residents, business owners, government, community-based organizations, non-profits, and other partners.

Inventory and prioritize sites in order to strategically use resources to meet the specific needs and goals of the community. Developing and maintaining brownfield inventories to highlight major issues while identifying the public's priorities can assist in uncovering the strongest potential for reuse of a site.

Identify where the money is coming from,

depending upon the community interest, environmental, health or economic concerns, and other revitalization details. There are a diverse selection of government agencies that offer many collaborative funding choices. Public-private partnerships (P3s) are one option, which allows for capitalization of local and regional government resources to invest in long-term implementation of community-based and privately funded organizations. It also ensures that the public is involved

Steps to redevelopment of a brownfield



Source: EPA Brownfields Area-Wide Planning Program Fact Sheet, 2012.

throughout the entire redevelopment process. Lastly, providing local tax incentives, such as tax abatements, incentive districts, and bonds assistance to make remediation and reuse of the site more appealing to investors and developers.

Formulation of planning strategies for a site through master planning with stakeholders and the community helps identify the existing conditions of the local physical, social, economic, and environmental context of the project. Planning also sets the vision of the short/long-term goals and objectives for revitalization in phases and estimates project costs. These factors could initiate implementation strategies for cleanup and reuse. Master plans also assist in achieving

capacity and help to educate the community stakeholders, the public, and government entities about the project. This can spawn advocates to build and maintain support of the project, while acquiring additional funding or further investment.

Understand market demands is essential to determine the appropriate redevelopment type. Evaluating the existing conditions with an informed market analysis and environmental constraints analysis will provide a more feasible direction for implementation and reuse.

Promote the site by coordinating efforts with all partners to share information while leveraging technical assistance and resources from beginning to the end of the redevelopment process. Utilize locally-driven initiatives and other area-wide programs to advance the process of aligning the plan with community goals and keeping the momentum. Once the planning phase is complete, identify local market of the site, market the site through real estate brokers, create a website, and produce and advertise briefing sheets that discuss the progress of the site.

Steps to site remediation

Once site selection, public support, funding, and a general vision for a brownfield site have been established, the real work in cleaning up the site may begin. Following are EPA's steps to site redevelopment for municipalities, land owners and developers to follow for a brownfield redevelopment.

- **1. Pre-development:** Identify potential and redevelopment ideas. Identify potential funding and partners.
- 2. Investigate conditions: Assess site for potential contamination and determine if there are immediate threats to local residents.
 - If no contamination found, then the redevelopment process can start.
 - If contamination is found the clean-up process starts.
 - Environmental Site Assessment (ESA)
 Phases 1-3:
 - ESA P1: identifies contamination liabilities
 - ESA P2: Sampling/testing of soils/water and remediation options
 - ESA P3: Remediation

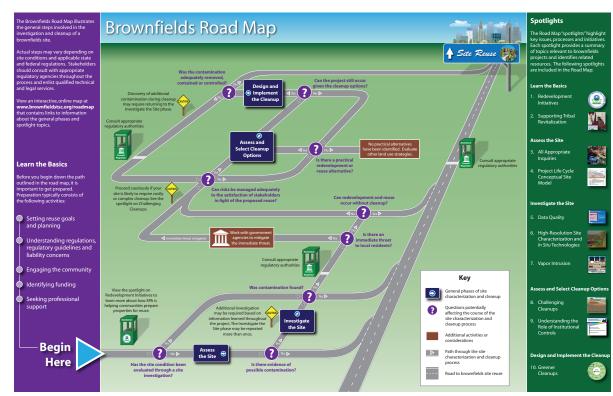
3. Assess and select clean-up options

- Can the redevelopment and/or reuse occur without clean-up?
- Proceed cautiously if your site is likely to require costly or complex clean-up.
- The EPA has funding to assist in every aspect of a brownfield when trying to reuse a site including:
 - Assessment grants ▶
 - Cleanup grants ▶
- Revolving loan grants ▶

4. Redevelopment or site reuse

Tool: Use EPA Brownfields Road Map. ►

To view larger Brownfields Road Map and more information. ▶



Source: EPA, 2017

Tools and programs to use

The following tools and programs are for municipalities and/or developers to consider when redeveloping brownfields. They include federal, state, local guidelines, resources, and funding. Primary contact agencies for the following tools and programs are also provided.

Tools

- EPA's Brownfields Federal Program Guide
 This guide offers a listing of federal agencies and organization programs that are available to communities that need technical or financial assistance with brownfield redevelopment. Link to guide. ▶
- EPA's Setting the Stage for Leveraging Resources for Brownfields Revitalization This guide explores how communities can prepare to successfully leverage funding and the key steps and strategies involved in brownfields revitalization. Link to guide.
- PADEP's Brownfields Development Guide
 This publication provides guidance
 to communities that are considering
 redevelopment of brownfields and services
 available to them through the state's
 Department of Environmental Protection.
 Link to guide. ▶
- Blight to Bright Toolkit
 This toolkit, by the Housing Alliance of PA, is an effective resource to guide communities in revitalizing vacant properties into productive uses. Link to toolkit. ➤ Additional resources can also be found at the PA Blight Library. ➤

Programs

• EPA's Brownfields Program

The EPA's Brownfields Program ▶ provides

grants technical assistance and basis

grants, technical assistance, and basis information on how to assess, cleanup and reuse Brownfield sites.

- PA Department of Environmental Protection (PADEP): Land Recycling Act 2 Program
 The Act 2 Program ▶ is a voluntary cleanup program to encourage public sector of contaminated, vacant or underutilized properties and return them to productive use.
- PA DCED: Industrial Sites Reuse Program (ISRP)

This program provides grants and low-interest loan financing to assist with environmental site assessment and remediation of former industrial sites. For more information about the program please contact the Chester County Economic Development Council ▶ or visit the PADCED website ▶

 PA DCED: Business in Our Sites Grants/ Loans (BOS)

This program assists communities to attract growing and expanding businesses by helping to create an inventory of sites. For more information about the program please contact the Chester County Economic Development Council or visit the PADCED website.

 PA Infrastructure Investment Authority's Brownfield Remediation Loan Program
 This program assists property owners and municipalities with low-interest loans to help facilitate the sale and reuse of industrial and
 commercial properties. View Program. ▶ For more information about the program please visit PENNVEST's website. ▶

 Chester County: Vision Partnership Program (VPP)

This grant program provides both technical and financial assistance to municipalities for planning projects only. For additional information please contact the Chester County Planning Commission ▶ or visit the VPP.▶

Local Economic Revitalization Tax
 Assistance (LERTA): Phoenixville LERTA
 Program

This tax incentive program encourages economic development in targeted areas with tax abatements of up to 100 percent on improvements to a property for up to 10 years. Chester County LERTA examples include: Phoenixville Borough > and Caln Township. >

- Tax Increment Financing (TIF)
- This financing program assists in the development, redevelopment, and revitalization of brownfield sites. For more information about the program please contact the Chester County Economic Development Council or visit the PADCED website.
- Keystone Opportunity Zones (KOZ)
 This program provides state and local tax abatements to businesses and residents locating in designated areas over a selected period of time. For more information about the program please contact the Chester County Economic Development Council ▶ or visit the PADCED website. ▶

Regulatory Guidance

Update zoning regulations and streamline the review process

Existing zoning standards in municipalities with brownfields may no longer be relevant to the market demand, and may be outdated or out of context with economic development goals. This could impede redevelopment of a site. Large brownfield sites, particularly in Chester County, are often located in industrial zoning districts surrounded by residential and/or commercial uses. Regulatory standards should be reviewed and/or updated to be more flexible and appropriate to integrate with the community's vision. The following list identifies a few ways to update zoning regulations to assist in the redevelopment of a brownfield.

 Provide public outreach to inform the community about existing and proposed zoning regulations related to a specific redevelopment site so the public understands the potential change, cleanup, costs involved, and how it affects them and the municipality as a whole. A brownfield site may be better used for mixed residential and commercial space, but may require a stricter cleanup goal and cost more than that of continued industrial uses within the existing district.

- Create a strategic plan or master plan
 to expedite the process. The plan would
 identify priority locations in a municipality
 for redevelopment, which would allow
 developers to bypass portions of the
 standard development review process and
 gain approvals quicker.
- Simplify the zoning regulations by incorporating additional uses "By-Right" or adding an overlay district to provide additional use options to the base district for developers to consider. These options could encourage smart growth principles with a mix of uses that deals more with design and density and focuses less on technical issues.
- Develop incentives, such as TIFs and/ or density bonuses to encourage higher density or desired development. These incentives could allow for additional height increased number of units in a development in exchange for sidewalks, trails, green space, etc. as part of the redevelopment of the site or locations elsewhere.
- Provide timely review process by avoiding the conditional use or special exception process, having more reasonable allowances for higher density developments and reducing the amount of impervious coverage to offset the stormwater management costs.



Worthington Steel Site in 2002. Google Earth, 2017.



Uptown Worthington Development in 2016. Google Earth, 2017.

The Uptown Worthington project is an example of how both East Whiteland Township and the Developer created a master plan with new zoning and a phased redevelopment approach to build a mixed-use live, work and play town center on a former brownfield (old steel factory) site.

Allow for diverse uses and building types, while maintaining community character

Depending on how it effects the character of the local community, brownfield sites often turn into mixed-use developments that spur economic development and investment, but not all sites should be branded for mixed-use. Mixed-use developments are a popular reuse option, but sometimes using an intermediate use (such as pop-ups, self-storage, vehicle parking, contractor yards, etc.) or simply keeping the site within its current district and tweaking existing standards is more suitable. All brownfields are unique and orienting the reuse of the site to the surrounding community should be a primary goal. The following are some options to consider:

Mixed-used development on underutilized land in urban areas

Chester County brownfields are located adjacent to train stations and steel sites where mixed-use development options with ground floor retail, office or apartment on upper floors should be considered. Incorporating plazas and green open space can reinvent these once vacant industrial sites to be productive and pleasant public spaces.



Phoenix Village, Phoenixville Borough



East Side Flats, Malvern Borough



124 Marketplace in West Chester Borough

 Mixed-used in suburban office environment Depending on the location of the site and what the local market says, mixed-use may not work. Existing uses such as industrial and manufacturing may still be the best options. Different façade treatments and/or building footprints and styles should be required to integrate these uses into the adjoining community. These types of uses should also be allowed somewhere in the municipality because of state legislation and should be worthwhile options when considering reuse of a site. Additional uses, like institutional and green energy facilities, commercial retail or even multifamily housing should be considered for these districts as viable options, as long as, they are integrated in the community and vision.





The above imagery shows before and after photos of the Atwater development project in East Whiteland Township. Google Earth 2017.



Atwater is located on an old quarry site just outside the Great Valley Corporate Center along the PA Route 29 corridor. When completed it will host a mix of uses which includes: offices, housing options, retail, restaurants and pedestrian amenities.

Adaptive reuse of underutilized sites

Take intermediate steps when redeveloping a brownfield site or sites. A long term solution is not always the best option when there may be short-term, less costly options available. Some uses such as recreation facilities (indoor and outdoor), green space, urban farming, or parking areas can create much needed space for temporary or seasonal events like farmer's markets, festivals, concerts and adaptive reuse of abandoned buildings. These short term uses or "pop-ups" could create a sense of place by making the old site attractive and incorporated as part of the community. Municipalities should include pop-up uses within districts with brownfields to encourage this short term development option to assist in encouraging economic growth. DVRPC published a municipal implementation tool called "The Pop-up Economy" ▶ in 2014. This document discusses the pop-up trend that has gained momentum in recent years across the nation and the benefits and challenges of pop-up shops, events, and planning have on communities.



The Creamery in Kennett Square Borough formerly was a creamery and mushroom cannery. Historic Kennett Square, 2015.



The Creamery is an example of how a pop-up beer garden can be successful in an adaptive reuse of a former manufacturing space.

Physical Improvements

Support infrastructure to better serve larger community

A brownfield can become a positive contributing factor to the economy of the surrounding area, particularly by expanding and/or updating the local infrastructure and introducing new resources through redevelopment. New uses and/or supporting amenities also play a key role in developing or enhancing the identity of a community, while improving the overall quality of life, improving property values and bringing more investment to the surrounding area. Physical Improvements that should occur in brownfield redevelopment could include but are not limited to the following:

 Utilize and improve abandoned structures and other infrastructure to provide a sense of place and feed off the history and surrounding uses. Incorporate social/green spaces as part of these places such as plazas and parks to function as market places and/ or event or festival venues.

- All brownfield redevelopments should be accessible to the transportation infrastructure and expand upon it. Extension or enhancement of roadways, sidewalks, trails, transit stops and wayfinding should be included as part of the development process to better serve the community and integrate existing infrastructure.
- Encourage development alternatives such as Transit Oriented Development (TOD) or Traditional Neighborhood Development (TND) that promote a mix of uses, a variety of housing options and pedestrian mobility in prime locations like a central business district or adjacent to a train station to generate economic growth and further investment.
- Promote the brand of a community and identity of area by incorporating if applicable wayfinding signage, street trees, lighting, seating and public art.
- Encourage environmental improvements, such as landscaping, stream regeneration or riparian corridor improvements, daylighting streams, or updating stormwater management practices.

Improve abandoned structures

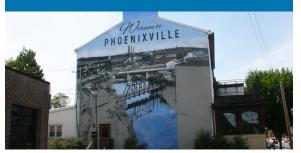
Adaptive reuse of a former paper mill site in Downingtown Borough

Improve or enhance transportation infrastructure



Exton Mall transit center stop, West Whiteland Township

Promote the brand of a community



Mural portraying Phoenixville Borough's steel heritage

Programs to use

The following programs will assist in the implementation of various elements of brownfield redevelopment. They include federal, state, regional and local resources and funding. Primary contact agencies for the following programs are also provided.

 HUD: Community Development Block Grant (CDBG): Entitlement Program

This program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing housing options and expanding economic opportunities for low- and moderate-incomes. For more information about the program please contact the Chester County Department of Community Development or visit HUD's website.

 PA Redevelopment Assistance Capital Program (RACP)

This state program provides communities grants for acquisition and construction of regional economic, cultural, civic, recreational, and historic improvement projects. For additional information visit PA Office of the Budget website.

 PennDOT: Transportation Alternatives Program (TAP)

This state program provides funding for programs and projects that include both on and off-road pedestrian and bicycle facilities, infrastructure improvements and enhancing access to public transportation among others. For additional information visit PennDOT's website.

Multi-modal Transportation Fund:

This program is offered by two separate entities (shown below) and provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to all communities. For more information about the program contact Chester County Planning

Commission > or visit the following websites:

PADCED > and PennDOT. >

 Chester County Department of Community Development: Community Revitalization Program (CRP)

This county program provides funding to support capital improvement projects in all 16 urban centers located in Chester County to support development and redevelopment. For additional information please contact the Chester County Department of Community Development or visit the Community

Development webpage. ▶





Conclusion

The redevelopment and reuse of Brownfield sites in Chester County should be a prime consideration of municipal, economic and building industry interests. When redeveloped correctly, these sites can act as economic development catalysts and assist with the revitalization of many downtowns and commercial centers, while preserving and enhancing a community's quality-of-life. While there are obstacles, the reuse and repurposing of historic buildings and properties pay dividends by establishing local and/or regional destinations and providing a sense of place and by building on the characteristics of the surrounding community. The recommendations in this document include creative re-use strategies, ordinance changes, design options and other ideas that can help give local communities, developers and stakeholders a starting point as to how they might want to plan and prepare for the redevelopment of brownfield sites. Redevelopment prospectives highlighted in this document will allow for these sites to become strong and viable destinations in the future.



The Foundry in Phoenixville Borough is one of the first and best brownfield revitalization efforts in Chester County and the region.

