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Private Investment in Brownfield Redevelopment in the Greater Philadelphia Area: A Case-Study Analysis

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Abstract

Brownfield redevelopment is a critical urban renewal tool that until recently has been overlooked by developers interested in less risky, pristine greenfields. Reformed legislation and public recognition of the negative effects of urban sprawl has made many investors realize the economic potential of brownfield redevelopment. This paper investigates the regulatory framework and incentives for attracting private investment in brownfield redevelopment in the greater Philadelphia area. It specifically examines three different reclamation projects and evaluates the effectiveness of their redevelopment procedures through site selection, remediation process, utilization of incentives, and impacts on the community. Through the availability of extensive incentive programs, liability and clean-up costs are no longer at the forefront of developers' concerns. The analysis finds that a successful brownfield project developer must choose a site in strategic location, have a long-term vision, and consider the input from and benefit to the surrounding community. The final analysis provides recommendations to promote economically viable brownfield program and project implementation in the future.

Comments

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Greater Philadelphia Area

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Ryan Kraske

**Capstone Project
Master of Environmental Studies
University of Pennsylvania
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ABSTRACT Brownfield redevelopment is a critical urban renewal tool that until recently has been overlooked by developers interested in less risky, pristine greenfields. Reformed legislation and public recognition of the negative effects of urban sprawl has made many investors realize the economic potential of brownfield redevelopment. This paper investigates the regulatory framework and incentives for attracting private investment in brownfield redevelopment in the greater Philadelphia area. It specifically examines three different reclamation projects and evaluates the effectiveness of their redevelopment procedures through site selection, remediation process, utilization of incentives, and impacts on the community. Through the availability of extensive incentive programs, liability and clean-up costs are no longer at the forefront of developers' concerns. The analysis finds that a successful brownfield project developer must choose a site in strategic location, have a long-term vision, and consider the input from and benefit to the surrounding community. The final analysis provides recommendations to promote economically viable brownfield program and project implementation in the future.

I. Introduction

As a response to the impractical and destructive nature of urban sprawl, it is imperative that we embrace more effective policy and planning methods to redirect new development back to our urban centers. Infill development reuses existing infrastructure to create higher density to accommodate growth as an alternative to expanding into greenfields. Brownfield redevelopment is a quintessential urban renewal tool that is becoming increasingly more recognized by planners and economic development specialists around the country. Their efforts have resulted in the implementation of a variety of incentives—liability protection, tax-relief, public subsidies—that are being used to promote private investment in brownfield redevelopment.¹ As a result of new federal and state legislation, it is now possible to reap substantial profits from development of contaminated lands.² Thousands of idle properties around the country are now being redeveloped for residential, commercial, open space, and industrial reuse, thereby improving the local economies and community quality of life.³

The literature on the incentives that promote private investment in brownfield redevelopment is expanding rapidly. Many research studies have found that the attractive incentives generally include some type of regulatory reform or liability relief.⁴ Other studies have examined the importance of community participation (Bartsch, 2003), interagency coordination, and strong public and private leadership (ICMA/NEMW, 2001). Many of the case studies have investigated the incentives and other drivers that have shaped the development of brownfields, often focusing on the more successful projects and failing to address the less successful ones.⁵ More importantly, few have evaluated why certain projects fail or sought to elucidate the factors involved in slowing the process. Few make recommendations as to what should be done to avoid unsuccessful redevelopment projects. In an effort to reclaim the abandoned properties, Pennsylvania has taken a lead role in developing a land recycling program to encourage private investors to redevelop brownfields. The purpose of this paper is to explore the usefulness and effectiveness of the programs through an analysis of three case studies of private investment in brownfield reclamation in the greater Philadelphia area. It will provide recommendations to local government officials and developers on the most important elements to consider when managing a redevelopment project.

II. Definition and Developer Interest in Brownfields

Although there is no universal definition, brownfields have commonly been defined as “abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.”⁶ It is estimated that there are as many as one million brownfields that tarnish the landscapes of communities across the country.⁷ They may have been home to former industrial/manufacturing establishments, gas stations, mines, landfills, shopping malls, dry cleaning establishments and other activities that may have generated contamination. They contribute to health hazards, blight, residential flight, property depreciation, and disinvestment in urban and suburban communities.⁸ Pennsylvania’s vast industrial heritage has left behind an estimated 10,000-12,000 brownfield sites—some 100,000-120,000 acres of prime real estate sitting vacant and—after assessment for contamination—ready for development.⁹

Previous research suggests that by carefully redeveloping brownfield sites, we can clean up environmental hazards, create jobs, remove urban blight, boost tax revenue, and improve the economic health of the local communities.¹⁰ By redeveloping brownfields we can ease the development pressure on green space and farmland, by reducing urban sprawl. One encouraging statistic cited by the EPA states that one acre of brownfield offsets 4.5 acres of greenfield development.¹¹ Brownfield redevelopment is a winning proposition for both our environment and the economy.

Not all brownfield sites are likely to be developed. Many smaller, poorly located, and functionally obsolete brownfields may never be developed.¹² The probability that a brownfield can be assembled into an adequate size is of prime importance when considering whether it can be developed.¹³ The primary focus of developer investment interests is on the sites that are viable for economic development. Economically viable brownfields are defined as underutilized properties with actual or perceived environmental liabilities that, due to their inherently positive market attributes, may be economically developed into productive assets.¹⁴ Many viable brownfields have desirable site characteristics such as location on a waterfront or access to mass transit. Many of these sites are highly accessible and have roads, sewers, power sources, and other infrastructure already in place.¹⁵ Developers that are acutely aware of the potential rewards typically buy well-located brownfield sites at a significant discount where demand is substantial, and then remediate the site using risk-based criteria and real estate strategies that design the site around the remaining contamination to reduce the risk to future occupants.¹⁶

Most developers are also aware that projects generally succeed only when a cooperative relationship has been established with the immediate community. In some cases, developers may encounter less neighborhood resistance during the development process because it is perceived that they are cleaning up pollution and removing blight.¹⁷ In other cases, additional complexities may arise when a community feels threatened by new development and claim environmental injustice.¹⁸ Therefore, the determination of the future end-use of a site and associated clean-up goals is an issue that requires a private developer to conduct extensive community outreach to strive to achieve plans that are mutually acceptable to both the developer and the community. Developers should consider public health improvements, potential job creation, and the overall

fit of the new development in the neighborhood.¹⁹ If public health and environmental justice concerns arise, formal meetings should be held with the community before undertaking any remediation and construction procedures, to allow for their meaningful participation. These meetings should be attended by the developer, community members, city officials, and state officials (if requested) so that they can fully understand the potentially impacted communities and reach a mutual agreement on what steps are necessary to implement a successful brownfield redevelopment project.²⁰

III. The Brownfield Problem

A. Origins

Historically, brownfields were difficult to develop because of the cost and the risk involved. Developers and investors had to consider the additional expense of cleaning up contaminated land as part of the site preparation. They also had to assume the inherent risk and unknowns related to the adequacy of the remediation from the perspective of the regulators and lenders.²¹

At contaminated sites, overall redevelopment costs clearly may be higher than at non-contaminated sites—although cleanup expenses may be offset by lower acquisition costs. High transaction costs are common in brownfield redevelopment projects. These may include expenses for investigating the presence and extent of contamination, costs associated with project delays due to assessments and cleanup, higher fees for loans due to higher underwriting costs, and additional legal expenses for environmental and regulatory activities. In some cases, the redeveloped site may incur additional expenses for monitoring.²² Additional difficulties with site assembly and remediation may delay a project's timing, which could cause it to miss a market window.²³ The cleanup costs and potential development delay that are associated with many of these sites is complicated further by other burdens such as blight, crime, absentee landlords, decaying infrastructure that discourage reinvestment and contribute to distressed neighborhoods.²⁴ Even after clean-up, many sites may bear the stigma of being “polluted land” that may lower sale or rental value.

The second major reason most brownfields have remained vacant for years is fear of liability and uncertainty.²⁵ These fears were largely compounded by strict federal regulations of their redevelopment. After the discovery of massive environmental problems in New York's Love Canal, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (1980) to govern the clean up of abandoned hazardous waste disposal sites. Commonly referred to as the Superfund Law, it allowed the EPA to investigate potentially contaminated sites, decide who is responsible for cleaning it up, and force responsible parties to pay. The "strict, joint, and several, and retroactive liability" clause under CERCLA declared that all persons associated with the polluted site were liable during the cleanup process, regardless of who was responsible for polluting it.²⁶ The liability was also open-ended—the property owner can be forced to pay for future clean-up if more tests detect additional or previously unknown contamination.²⁷ This liability has the potential to include the owners of the land, the banks that financed the purchase, the firm that generated the waste, the transporter, and the disposal firm. Thus, any prospective purchaser, remediation company, or fiduciary institution that became associated with a brownfield property assumed great financial risk and potential liability for its cleanup.²⁸

One sector that best illustrates this fear of this liability is banking. Under the terms of CERCLA, lending institutions can be held liable if they assume financial control of a contaminated property.²⁹ In response, loan officers often require expensive and time consuming environmental assessments of potential loan recipient's property when there is the slightest suspicion of contamination. In 1990, the American Bankers Association's survey of 2,000 lending institutions revealed that 62.5 percent had rejected loan applications based on the small possibility of environmental contamination.³⁰ Owners of industrial properties have also been deterred from seeking new uses for their old properties and instead, boarded them up or abandoned them rather than running the risk of having the discovery of contamination result in liability for their clean up.

In addition, the EPA required that all former industrial sites must meet an extremely high level of remediation—enough for residential use.³¹ This level of clean up would often require

millions of dollars more than if the site were cleaned to a lesser standard that would be imposed for industrial reuse. Another critical problem that the EPA found while trying to identify parties responsible for clean up was that many sites have been abandoned so long that the past polluters no longer existed as corporate entities.³² Therefore, much of the money, resources, and time associated with the Superfund Law are locked in endless litigation. The inadvertent effect of environmental legislation that was designed to spur brownfield redevelopment had instead stymied it.³³

B. Legislative Reform

Various federal legislative and regulatory reforms throughout the 1990s somewhat reduced concerns about potential liability throughout the 1990s, but more dramatic changes have occurred with the development of state-level voluntary clean-up programs. These programs encourage owners and developers to voluntarily come forward to address site contamination, in exchange for less stringent cleanup requirements and liability relief from future federal scrutiny of the site.³⁴

Finally, in 2002, Congress enacted the Small Business Liability Relief and Brownfield Revitalization Act to modify CERCLA and encouraged the private sector to redevelop brownfields. The new legislation protected contiguous property owners, prospective purchasers, and persons who undertake cleanups of the properties from CERCLA liability and clarified innocent landholders' defense to liability issues.³⁵ The Act provided funding both to state brownfield programs and to local governments who seek to return brownfield properties to productive uses such as commercial, residential, industrial, and green space.³⁶ It funded grants to communities and states for pre-clean up activities, environmental assessments, and cleanup planning and design.³⁷

The new legislation has provided tax incentives, such as tax credits, which would reduce the capital needed for many brownfield projects. Second, grant money has been given to cities or states to directly finance the cleanup process or capitalize in revolving loan funds. Third, the new legislation has provided fairly extensive liability clarifications, which protect innocent

people, new buyers, or neighboring property owners for having to pay for cleanup. The primary objective of this new legislation is to encourage private owners to redevelop brownfield sites and protect the environment.³⁸

The most popular and successful component of the legislation is the allocation of grant money. The four types of grants that have been administered by EPA and supported and authorized by Congress are assessment, clean-up, job training, and revolving loan.³⁹ Assessment grants provide funding for a grant recipient to make assessment, conduct planning, and organize community involvement related to redeveloping a brownfield site. The total grant funds allowed to a community-wide recipient may not exceed \$400,000 and are dependent on the amount of hazardous waste, contaminants, and petroleum pollution a specific site contains.⁴⁰ Most grants given to an individual recipient are no more than \$200,000.⁴¹

Clean-up grants are given to carry out remediation activities at brownfield sites. They are distributed to a recipient mostly for the removal of contaminated soil, groundwater testing, capping sites, and the removal of asbestos or lead paint from abandoned buildings. They require that the recipient provide a cost share of 20% of the clean-up activities.⁴² This cost share may be in the form of labor, services, material, or money and it can be waived if because of a hardship.⁴³

Job-training grants provide workforce development opportunities through environmental training and recruitment of trainees from economically disadvantaged communities, and provide the experience for workers who hope to develop skills for jobs related to brownfield cleanup. They forge partnerships between community colleges, local job training organizations, community groups, lenders, and developers to help revitalize the brownfields properties on social, economic, and environmental levels. A grant of up to \$200,000 is awarded to provide training for hazardous waste clean-up.⁴⁴

Revolving loan fund grants are a fourth type of incentive provided by federal legislation. These are grants of up to \$1 million per recipient, available for five years, which provide the capital for low interest loan funds to pay for site clean-up activities. These capitalization grants

can go to local governments, states, Indian tribes, and redevelopment agencies. A 20% cost share in the form of money, labor, or services is required.⁴⁵

At brownfield sites where water quality is an issue, there are special clean water state revolving loan funds to finance activities that can be used to correct or prevent water quality problems. The clean water state revolving loan fund has an excess of \$27 billion in assets and has issued over \$23 billion in loans since 1998.⁴⁶ Currently, it is responsible for funding nearly \$3 billion worth of water quality projects annually.⁴⁷ State programs also support clean water state revolving loan funds within EPA guidelines. State revolving funds can be used to cover costs of the disposal of underground storage tanks, capping wells, and excavation and removal of contaminated soil. Loans are repaid through local taxes, fees paid by developers, or recreational fees.⁴⁸

EPA's current brownfield program is based on collaborative efforts, cooperation, and voluntary action rather than strict regulation.⁴⁹ As a whole, the incentive package has successfully helped convert many brownfields into productive mixed-use developments that restore economic vigor to a community and provide for greater livability.

C. Non- Environmental Barriers to Redevelopment

Although the environmental status of a site is certainly an important factor in its potential for redevelopment, many other factors influence the decisions of developers and businesses to redevelop brownfields, or instead choose suburban 'greenfields.' Professor Heidi Robertson of Columbia Law School argues that environmental barriers are but one piece of a complicated puzzle in the arena of brownfield redevelopment.⁵⁰ Non-environmental factors such as the size and location of the site and infrastructure issues, that largely affect the way sites are marketed, are often overlooked. Unless government officials focus on these factors, they cannot substantially succeed in encouraging urban renewal and reducing blight.⁵¹

Non-environmental factors that typically affect the market value of a site include:

- Site location, size, accessibility, and configuration
- Existing buildings and infrastructure (roads, sewer, electric power, transportation)

- Zoning and likelihood of rezoning, and environmental regulations
- State and local tax burden on the site property
- Availability of and protections offered by liability insurance
- Access to markets (labor, materials, and output)
- Cost of land and labor⁵²

In a survey of attitudes of location and expansion held by three dozen private firms in the state of Ohio, Robertson, et al., found that non-environmental factors (suggested above) still play a far more important role than environmental liabilities in influencing location decisions.⁵³

According to Professor Michael Porter of the Harvard Business School, “vacant land and empty buildings often do not translate into lower-cost real estate because of the difficulty of assembling appropriate sized parcels from fragmented quarter and half-acre lots.”⁵⁴ In addition, demolition of existing buildings on a site as well as the litigation involved in unpredictable zoning battles surrounding the site can be considerably expensive. Once existing buildings have been demolished, the “high cost of construction [of new buildings on an urban brownfield site] is driven up by city traffic congestions, restrictive buildings codes, and higher bids due in part to union requirements and minority preferences.”⁵⁵ Other disadvantages of using existing inner city buildings result from multi-story layouts, low ceilings, floor instability, and lack of loading docks. For these reasons they may compare unfavorably to suburban locations.⁵⁶

Meyer and Lyons (2000) found that developers prefer larger sites (of at least 5 acres).⁵⁷ Lots of this size allows developers and investors to recoup their investments to an acceptable level, which is estimated to be a high of approximately 20% for residential development to a low of 8% for industrial redevelopment.⁵⁸

Researchers Simons and El Jaouhari (2001) conclude that a “key point [for understanding brownfields] is the consideration of economic factors, especially the real estate market”.⁵⁹ Hula (2003) finds that brownfield redevelopment in Michigan occurs in more desirable areas that are not blighted.⁶⁰ As a result, redevelopment opportunities are available in recovering or recovered

neighborhoods and communities, creating more attractive markets for these reclamation projects.⁶¹

It is important to note that no amount of remediation can restore a brownfield if the real estate value is low.⁶² Developers and investors need to know that the property value exceeds cost of acquisition and redevelopment costs, which are often complicated by future risks of additional remediation or the uncertainty of economic development potential of a neighborhood adjacent to the property.⁶³ Other important considerations include the visibility of the location, access to interstate highways and airports, high population densities, and consumer traffic.⁶⁴

IV. Pennsylvania's Land Recycling Program

Pennsylvania's Land Recycling Program is one of the most progressive and successful programs in the country. Signed into law by Governor Tom Ridge in 1995, the Land Recycling Program consists of three main statutes. As a voluntary clean-up program, it encourages the recycling and redevelopment of old industrial sites into productive economic use. It protects human health and the environment by setting standards for clean-up, while considering future use.⁶⁵ Potential developers enjoy the benefits of clearly stated clean-up standards based on risk. The program provides incentives in the form of grants and loans to encourage businesses to redevelop brownfields.⁶⁶ It protects lenders associated with redevelopment by ending their liability when the clean up standard is achieved and upon ownership of the land. Among its many benefits, the Land Recycling Program has led to key partnerships between local government and business that save the taxpayers millions of dollars in clean-up costs, making contaminated sites safe based on sound science, and preserving farmland and green space.⁶⁷

The first act, entitled the Land Recycling and Environmental Remediation Standards Act (35 P. S. §§ 6026.101--6026.909) (LRA), (Act 2), is the primary law which the program is based.⁶⁸ It provides a set of environmental remediation standards and standardized review procedures to promote the voluntary elimination of public health and environmental hazards. The clean-up plans must take into account the actual risk that contamination on a site may pose to public health and the environment.⁶⁹ It allows the choice between four cleanup standards:

background, statewide health, site-specific and special industrial areas.⁷⁰ The background standard requires the remediator to demonstrate that the contamination onsite is not related to any release of contaminants at the site itself.⁷¹ Any contamination in soil and groundwater must be statistically demonstrated to be present on the site and off the site.⁷²

The statewide health standard requires remediation of contaminants in soil and groundwater to meet statewide health or non-use aquifer standards.⁷³ A special 13-member Cleanup Standards Scientific Advisory Board set standards based on the range of excess cancer risk of between one in 10,000 and one in 1 million.⁷⁴ Remediation plans may require excavation and disposal of soil and extensive groundwater monitoring.⁷⁵ Volunteers may elect to meet either residential or nonresidential cleanup standards. Volunteers remediating the site to nonresidential standards are required to record a deed notice (notice of informal investigation).⁷⁶

The third remediation option is the site-specific health standard. This standard allows for clean-up levels to be developed for a specific site. This may involve a detailed risk assessment based on conditions and human exposures at the site to achieve a specific solution for remedy.⁷⁷ For suspected carcinogens, soil and groundwater clean-up standards must meet specific exposure factors. Some toxicants must meet certain statistical standards, which represent levels to which daily human exposure could occur without the risk of harmful effects.⁷⁸ The ecological impacts of the remediation plan must also be evaluated. Often, the community is actively involved in each step of this clean-up process at the request of the local municipality.⁷⁹

The fourth standard for clean-up that can be utilized is the Special Industrial Areas. These include properties used for industrial purposes where there is no financially responsible party to clean-up the contamination.⁸⁰ These sites are often abandoned or are located in enterprise zones. In these cases, a person not responsible for causing or contributing to the contamination may obtain liability protection by entering into an agreement with the Department of Environmental Protection (DEP).⁸¹ The innocent purchaser must submit a baseline environmental report with proposed remedial measures to the DEP and allow for a 90-day review period.⁸² Based on that report, the innocent purchaser and the DEP and redeveloper must address immediate, direct, and imminent threats to public health and the environment.⁸³

All clean-up standards require a degree of public involvement. The developer must submit a notice of intent to remediate and in some cases a submission of a final report demonstrating the attainment of the specific standard, to DEP and the local municipality, which must also be published in a local paper.⁸⁴

Act 2 offers clean-up liability protection to all persons participating in the remediation as well as to future site owners and occupiers. The owner or developer of a site is relieved of liability once the site has been remediated according to the above standards and procedures. The owner or developer of a special industrial area has limited liability and is only responsible for immediate threats, and not the remediation of any other contamination.⁸⁵ The liability protection also does not apply to future contamination of the site.⁸⁶

The Industrial Sites Clean-up fund is established through Act 2 and is designed to provide financial assistance to innocent persons to conduct voluntary cleanups. The Department of Commerce administers the program and grants and low-interest loans are provided to cover up to 75 percent of the cost of completing an environmental study and implementing a cleanup plan.⁸⁷

The Economic Development Agency, Lender, and Fiduciary Environmental Protection Act (Act 3) extend liability protection to financiers, such as economic development agencies, lenders, and fiduciaries.⁸⁸ Banks and other lenders may be reluctant to provide services to persons with environmental problems because of the risk of environmental liability and remediation costs for conditions and contamination that were not caused by the lender. Under Act 3, lenders can only be liable if they *directly* cause an immediate release or *directly* exacerbate a release of regulated substances or *knowingly* compel a borrower to violate an environmental law.⁸⁹ Liability is limited to the costs directly attributable to the lender's actions. In other words, even if a lender becomes liable, its liability is intended to be very limited. In order to stimulate economic growth it is necessary to provide protection to the financier.

The Industrial Sites Environmental Assessment Act (Act 4) expands the provisions of Act 2 and allows the Department of Commerce to make grants to municipalities or nonprofit economic development agencies.⁹⁰ These grants are to be used for environmental assessments of industrial sites located in distressed communities. Certain cities may also be eligible for grants to conduct environmental assessments and cleanup activities. Funds may be used for the removal and remediation of hazardous substances. All applicants must not have caused or contributed to the contamination of the site. The state of Pennsylvania has designated \$17 million in financial aid for LRP program participants.⁹¹ Up to \$2 million per year is transferred to this fund from the Hazardous Wastes Cleanup Fund.⁹²

A. Pennsylvania's Land Recycling Program Accomplishments

The Pennsylvania Land Recycling Program (PA LRP) boasts of having one of the best brownfield programs in the country. According to the Pennsylvania DEP website, 2,498 sites have been approved for clean-up by the Department and completed remediation procedure.⁹³ A majority of the sites have been cleaned to statewide-health standards. There are 1,842 sites currently waiting approval.⁹⁴ The success of the program can be attributed to several reasons. First, it establishes clear and concise options for cleanup and risk assessment. Second, there is an elimination of many adversarial enforcement actions and delays in clean-up plans. Third, the loan application process is user friendly and there is usually a rapid assessment and approval of loans (7 calendar days in some cases).⁹⁵ Finally, the Pennsylvania Land Recycling Act requires an element of public participation and community support. It requires the developer to “develop and implement” a public involvement plan (PIP) if the municipality requests to be involved. The established requirements relate to public notice, public comment, hearings, meetings, document availability, and grants to citizen groups. The public notice is followed by a 90-day comment period.⁹⁶ A public hearing is held within the 90-day comment period.

When Governor Ed Rendell took office in 2003 he promoted an ambitious plan to accelerate redevelopment projects and give investors the certainty, confidence, and incentives they needed to clean up brownfield properties and return them to productive use.⁹⁷ A recent report prepared by the state government revealed that over the last three years, Governor Rendell

invested almost \$230 million in Pennsylvania's brownfields redevelopment program, cleaning roughly 950 abandoned industrial sites covering more than 6,000 acres, while creating or retaining 27,000 jobs.⁹⁸ The PA Revitalization report states that under PA's LRP, the state has cleaned up over 2,194 contaminated and abandoned industrial sites (As of April, 2007 the number has increased to 2,498).⁹⁹ Approximately, 40 percent of cleared sites have been completed since 2003.¹⁰⁰

The report continues by stating that the Government and the Legislature have collaborated to enact one of the largest economic stimulus packages in the country—a \$2.8 billion package of venture capital, loans, and grants designed to create and retain jobs, ignite business growth, and sustain communities.¹⁰¹ To increase the speed of redevelopment projects and give investors confidence, Governor Rendell launched the Brownfield Action Team (BAT) in 2004. BAT serves as a single point-of-contact system to streamline permitting processes and redevelopment efforts for those sites that local officials target as redevelopment priorities.¹⁰² The BAT works closely with other state agencies to provide one-stop shopping for cleanup and financing strategies, based on the proposed use of the site and benefits to the surrounding area. BAT projects typically get completed in half the usual time.¹⁰³ Since its inception in 2004, BAT has assisted with 33 projects in 22 counties to redevelop more than 4,500 acres of brownfields.¹⁰⁴ The Pennsylvania Land Recycling Program deserves to be commended for protecting human health, cleaning the environment, reducing the expense to taxpayers, promoting volunteerism, and saving farmland and green space from future development.

B. Demand for Brownfields and Alternatives to Economic Reuse

Despite the reduction in uncertainty through legislation of the basic statutes, increased financial incentives by public subsidy, and technical assistance, successful remediation of a brownfield site may not produce a profitable investment outcome. Researchers Peters and Fisher (2004) found that brownfields located in socially or economically depressed areas often present challenges that are not overcome by incentives alone. Through their research in enterprise zones, they concluded that the effect of incentives were “essentially inconsequential in all but a few

cases” and suggest that the negative characteristics of a site cannot be overcome by incentives alone.¹⁰⁵

In a report prepared by the Great Lakes Environmental Finance Center (GLEFC) at Cleveland State University, researchers tried to determine the balance between demand for and supply of brownfields in four Great Lake Cities. Researchers found that three of the four cities “contained [a supply of] three to ten decades worth of central city brownfield properties relative to annual nonresidential real estate demand, even with improved voluntary cleanup programs in the states.”¹⁰⁶ Other research suggests that some brownfields are economically obsolete; regardless of how clean the site is, unless a substantial amount is invested in improving infrastructure (roads, sewers) or assembling parcels of land into marketable sites.¹⁰⁷ Depending on one’s scope of the definition, it can be estimated that almost half of all existing brownfields may be best suited for long-term interim uses (i.e. community gardens) or for permanent open space, parkland, or buffer zones.¹⁰⁸ The opportunity to transform these lots into community green spaces or community gardens is often a sensible short-term solution with long-term benefits to the surrounding community. Brownfields redevelopment can be a time-consuming process of identifying, assessing, negotiating, cleaning, litigating, and constructing new infrastructure on a site. Redeveloping a brownfield may take several years to complete. In some cases, longer periods of time are needed for larger and more severely contaminated sites. What happens to the sites and the surrounding community in the interim period? The quicker vacant land and brownfields are put back into productive use, the less likely the contagion of abandonment will spread.¹⁰⁹ In addition, green spaces in the city may provide opportunities for exercise and recreation or relief from traffic and noise. On a broader scale, green spaces, trees, and gardens filter air and water, absorb storm runoff, provide shade, moderate temperatures, and can even reduce crime rates.¹¹⁰ Perhaps, city officials need to recognize this reality and rezone brownfield sites to accommodate these less-intensive uses.

In Philadelphia, non-profit organizations have been active in promoting the reuse of vacant land through community gardening and neighborhood greening. The foremost of these organizations is the Pennsylvania Horticultural Society (PHS) and its Philadelphia Green program. Since the mid-1970’s, the Society has introduced the concept of greening as a

significant tool for community revitalization. One of the first objectives of Philadelphia Green was to reclaim vacant land. In the New Kensington neighborhood, Philadelphia Green partnered with the New Kensington Community Development Corporation and the city's Office of Housing and Community Development to create a vacant land management system.¹¹¹ Through the employment of the basic "clean and green" method, tree plantings, and the transfer of vacant lots to adjacent homeowners as private 'side yards,' the land management program has been hugely successful. Now in its tenth year, over 60% of the community's 1,100 vacant lots have been improved—as community gardens, side yards for adjacent homeowners, and basic "clean and green" lots planted with grass and trees.¹¹² At the federally funded American Street Empowerment Zone in North Philadelphia, Philadelphia Green has worked with community based organizations to transform over 55 abandoned lots filled with mounds of trash and debris into "clean and green" lots.¹¹³

Neighborhood greening and community gardens are effective tools in brownfield redevelopment and vacant land reuse on three critical levels. They have positive impact on the environmental, social/cultural, and economic status of a community. They are important in improving the physical appearance and health of the urban environment, fostering social values and preserving cultural heritage, and improving the economic well being of the community.¹¹⁴ Neighborhood greening preserves the environment by cleaning up debris and trash and replacing it with new trees, grass, shrubs, and flowers.¹¹⁵ Community gardens encourage the cultivation of vegetables and other plants that provide healthful food for low-income people. Greening and gardening help to foster communities' social and cultural values by encouraging social interaction and creating neighborhood pride.¹¹⁶ This renewed sense of community pride increases neighborhood awareness, which has been shown to decrease drug activity and crime rates. Gardens also bring people together across racial and socioeconomic boundaries. Lastly, greening and gardening have a positive impact on the economy of local communities by establishing food security, increasing real-estate values, and encouraging employment through job-training opportunities.¹¹⁷

V. The Existence of Brownfields in Philadelphia

A. The City's Industrial Heritage

Large urban industrial areas have been especially affected by the dilemma of abandoned land. In the first half of the 20th century, Philadelphia was indeed an industrial powerhouse. It led the nation in production of hosiery and knit goods, carpets and rugs, fur-felt hats, locomotives, dyed and finished textiles, upholstery materials, streetcars, oilcloth and linoleum, sporting goods, saws, and surgical appliances and artificial limbs.¹¹⁸ It represented 211 of the 264 different classifications of industry as determined by the Bureau of the Census.¹¹⁹ After completing a study of industrial life in England, Germany, and the United States in the early 1900's, the Englishman Arthur Shadwell, concluded that Philadelphia was "the greatest manufacturing city in the world."¹²⁰

In 1909, Philadelphia was the largest manufacturer of textiles in the entire world, and one third of all wage earners in the city worked in some area of the field.¹²¹ By 1992, employment in the textile and apparel industry had shrunk to a tiny thirteen thousand, or two percent of the city's total employment. Given the trend of that decade, where 88,000 manufacturing jobs, or two out every five, were lost; it became clear that the trend would only continue.¹²² The industrial giants—Baldwin Locomotive, Cramp and Sons Steam Ship Yards, Stetson Hats, Henry Disston's Saw Manufactory, Excelsior Brick Works, J.B. Lippincott and Company, Sovereign Oil—were all closed for business, leaving behind shuttered factories, decaying infrastructure, and poisoned land.¹²³ As Buzz Bissinger keenly stated in his book, *A Prayer for the City*, "The Workshop of the World had become the Manufacturing Mausoleum of the World."¹²⁴ In 2000, Philadelphia's City Planning Commission found more than 31,000 vacant lots—double the figure of 1990—and about 25,000 vacant structures.¹²⁵ If all of this vacant land were concentrated into one area, it would be the size of downtown Philadelphia.

B. Philadelphia's Brownfield Program

While the states hold regulatory authority over the policies of a brownfield program, it is the local government that often manages the redevelopment of specific brownfield sites.¹²⁶ Local government departments of economic development and planning typically direct local brownfield programs and are ultimately responsible for their implementation. Most local governments embrace brownfield revitalization as a practical tool for urban redevelopment because it gives them the perfect opportunity to return blighted industrial sites to productive reuse while improving the environment and creating hope for many depressed communities surrounding these sites.¹²⁷

In Philadelphia, the Department of Commerce is the primary organization for all economic development in the city.¹²⁸ Its objectives are to stimulate and facilitate economic improvement in all neighborhoods of the city. It collaborates with delegated agencies such as the Philadelphia Industrial Development Corporation (PIDC) and the Redevelopment Authority (RDA) to incorporate development strategies. The Department of Commerce's website declares that "its business development strategies help both small businesses and major corporations thrive."¹²⁹

Among its other duties, the Commerce Department administers federal and state business incentive programs, provides loans, and provides site selection and land acquisition services to any companies that are interested in relocating or expanding into the Philadelphia market. Its federal duties include the administration of the federal empowerment zone program, which provides qualified businesses in certain designated areas with low-interest financing, federal wage tax credits, and tax-exempt facility bonds.¹³⁰ For the state, it administers the Keystone Opportunity Zone state program (KOZs) that provides tax exemption from all or most state and local business, real estate, and occupancy taxes for companies that locate in any of these designated areas. These tax abatements are conditional on firms increasing full-time jobs in the first year of operations or making significant capital investments in property within the zone.¹³¹

Located in the Department of Commerce is the city's brownfield program. Its objective is to provide financial and technical assistance to developers with interest in redeveloping land with potential environmental liability. In an interview, Jon Edelstein, Industrial Reuse Manager in the Department, asserted that the driving force of the brownfield program in Philadelphia is economic development *not* environmental concerns.¹³² The local program focuses on industrial land reuse and with an emphasis on large parcels of land on the waterfront.¹³³ The size and location of the parcel contribute to its market potential, thus are critical factors in attracting developers to an area for redevelopment. Generally, brownfield sites in Philadelphia do not sit vacant because of environmental contamination.¹³⁴ In fact, they present more marketing issues than liability issues.¹³⁵ The sale of brownfields, like most other real estate, is a market-driven process. According to Mr. Edelstein, large pieces of industrial land sell themselves.¹³⁶ A large percentage of Philadelphia's brownfields are too small, poorly configured, poorly located, or away from strategic economic zones, to attract serious private investment interest.¹³⁷

One objective of Mayor John Street's Neighborhood Transformation Initiative (NTI) is to clear and acquire smaller parcels of land and to assemble them into larger tracts that will be more suitable for developers' plans. Mr. Edelstein claims that one of the largest barriers to the run-away success of the local brownfield programs is the lack of inventory of large industrial sites.¹³⁸ PIDC claims they are at a 30-year low in inventory of sites that have the potential (adequate size, location, and configuration) to be invested in by a private developer.¹³⁹ To encourage investment and redevelopment, the City often "writes-down" a property—selling a property for less than market value.¹⁴⁰ Historically, Philadelphia has been behind the real-estate curve. The recent real estate boom over the last seven years has only brought the city up to par with many of the other larger cities in the nation. Currently, the real-estate market has reached a plateau where prices are not going up or down.¹⁴¹

According to Mayor John Street's "Economic Development Blueprint for Greater Philadelphia," one of the major objectives is to continue the successful development of Philadelphia's 38 miles of waterfront.¹⁴² In furtherance with this vision, the current objective of the city's local brownfield program is to focus on aggressively marketing the sites that fit within the parameters of Philadelphia's New River City Project.¹⁴³ The goal of the Project is to reclaim

the rivers in Philadelphia by stimulating economic interest in developing along their shores, providing public access to their banks, and planning for a more sustainable and livable environment for the city's residents and visitors alike.¹⁴⁴ Both the Northern Delaware River and the Southern Schuylkill River are targeted for large redevelopment projects.

Lower Schuylkill River: The development plan includes a partnership with the Schuylkill River Development Corporation (SRDC) along with other stakeholders such as the University of Pennsylvania, Drexel University, Brandywine Realty Trust, and Amtrak. The SRDC Master Plan for the site incorporates the Schuylkill River Park and Trail, 700,000 square foot Cira Centre office tower, and redevelopment plans for the Civic Center and Post Office sites.¹⁴⁵

North Delaware: The plan includes redevelopment of eleven miles of riverfront zone north of the Betsy Ross Bridge. The Master plan was prepared by the Philadelphia City Planning Commission (PCPC). Its central vision is to convert 3,500 acres of decaying industrial land to residential, recreational, and commercial uses at a total cost of \$1.5 billion.¹⁴⁶ Public funding for remediation and trail/roads/parks is in the process of being reviewed. Brownfield reclamation is underway on several major sites along this section and private developers are moving ahead with at least three important residential projects.¹⁴⁷

Central Delaware: A market-driven residential and retail development is underway along the Delaware River from Port Richmond to Packer Ave. The city is reviewing several bids for possible casino locations along this section.¹⁴⁸

The City Council would like to support the proposed redevelopment strategies by pursuing with PIDC's mixed-use Master Plan, continuing to support SRDC's Master Plan, cooperate with PCPC's Master Plan.¹⁴⁹ Furthermore, it plans to coordinate development of the Central Delaware as a residential, commercial, and entertainment destination. The Council has committed \$125 million to appropriate New River City infrastructure which will leverage maximum private and other public funding.¹⁵⁰ The city will continue its responsibilities of planning, land assemblage, environmental remediation, demolition, and infrastructure

investment. This will create opportunities for private developers to commit significantly to greater levels of capital necessary in anticipation of market rate returns.¹⁵¹

Projected outcomes of the Philadelphia's New River City Project over the next three years include approximately 750,000 sq ft. of office space, 2,500 new jobs, 650 residential units, and with a total investment of \$250 million.¹⁵² The city estimates that public investment costs will be \$30 million, primarily for street, open space, and utility upgrades.¹⁵³

On February 23, 2006, Governor Rendell announced his endorsement of Philadelphia's New River City Project by designating the Schuylkill and Delaware River sections of the project eligible for Brownfield Action Team assistance. Environmental Protection Secretary Kathleen McGinty presented a \$400,000 grant to the Schuylkill River Development Corp., to help create a 14-foot wide asphalt recreation trail along the section of the east bank of the river in the 34th Street/Grays Ferry Avenue area. The trail would provide recreational riverfront access that it previously lacked. The non-profit entity will use the funding to conduct environmental assessments and remediation on the land where the trail will be located. The funding is derived from the U.S. Environmental Protection Agency's Small Business Liability Relief and Brownfield Revitalization Act which provides money for states to pay for assessments and clean-ups. Pennsylvania has received about \$1 million from EPA in each of the last three fiscal years.¹⁵⁴

The funding for the Philadelphia's brownfield program is mostly funded through the Hazardous Sites Clean-up Act (HSCA) that has recently been replenished by Growing Greener 1 & 2, largely supported by Governor Rendell. The Department of Commerce has received \$1.5 million from the state and \$200,000 from the EPA to facilitate the local brownfield program and encourage future development.¹⁵⁵

In 2004, an Memorandum of Agreement (MOA) was signed by the Environmental Protection Secretary (on behalf of Gov. Rendell) in conjunction with the EPA that made PA LRP's the first in the nation to serve as a one-stop shop for state and federal standards guiding the brownfield redevelopment. Sites that are remediated under the state's brownfield program

now also may satisfy requirements for three federal laws: RCRA, CERCLA, and TSCA. The MOA sets a clear path for developers to address both federal and state remediation obligations.¹⁵⁶

Several local investors and development corporations sung the MOA's praise. "The Philadelphia Naval Yard has become a terrific asset for economic development in Philadelphia, and today's announcement provided even greater incentive for companies to re-use former industrial sites like the Navy Yard rather than looking to greenfields elsewhere," said Peter Longstreth of the Philadelphia Industrial Development Corporation.¹⁵⁷

VI. Philadelphia Naval Yard: A Grand Vision of Mixed-Use Redevelopment

The property lies 3.5 miles south of City Hall at the foot of the historic Broad Street axis. The 1000-acre former Navy base, comparable to the size of Center City, contains an active shipyard west of Broad Street, six miles of waterfront along the Schuylkill and Delaware River Estuaries, and over 187 historic buildings in the National Registered Philadelphia Naval Shipyard Historic District.¹⁵⁸ A public-private partnership of the Philadelphia Industrial Development Corporation (PIDC) and Liberty Property Trust/Synterra Partners with assistance from Robert A.M. Stern Architects issued a Master Plan in 2004 to guide the redevelopment of the 522 acres east of Broad Street. The master plan for the Navy Yard envisions a vibrant mixed use community of office, residential, institutional, cultural, research and development, retail, and recreation uses.¹⁵⁹ The plan capitalizes on the property's unique assets, which include the site's enormous size, its location at the center of the region's transportation networks and labor force, a historic district with extraordinary turn-of-the-century architecture and landscape, its more than several miles of frontage along the Delaware River, and its proximity to the cultural amenities of the region. The plan also addressed the site's several constraints including limited road connection from Center City, no direct mass-transit connection, large areas susceptible to flooding, soils with low-bearing capacity, and a residential deed restriction.¹⁶⁰

A. Site History

The Philadelphia Naval Shipyard officially opened in the city's Southwark District in 1801. Seventy-five years later the yard moved three miles south to its current location in the southern part of the city. The tidal water of the Schuylkill and Delaware River Estuaries protected the iron ships from rust, and its inland position, ninety-five miles from the place where the Delaware Bay meets the Atlantic Ocean, offered it protection against attack.¹⁶¹ The steel and iron needed to build the new ships were close at hand as well as an inexhaustible supply of skilled labor. Several of the Navy's non-nuclear aircraft carriers were either built there or overhauled and modernized. In 1970, the yard built its last ship from the keel up, the 18,646-ton USS Blue Ridge.¹⁶² By the 1990's, the Philadelphia Naval Yard was home to a number of rusting ships and an unknown amount of dangerous chemicals from past industrial uses. Its streets were nearly deserted, its dry docks empty, and its cranes at a standstill. Still, the shipyard held considerable value. The complex contained over 1,000 buildings, 52 miles of streets, and six miles of waterfront in the southernmost point of Philadelphia. A 1999 appraisal of the property, commissioned by the Navy, concluded that the shipyard had an estimated fair market value of \$56.6 billion.¹⁶³ However, decommissioning and cleaning the contaminated property for suitable reuse would not be cheap. The U.S. Navy reported that it spent almost \$300 million over five years, including \$88 million for the environmental clean up of the property.¹⁶⁴ The historical use of the site was primary shipbuilding, but it was also used as a landfill and had an incinerator on it at one point. This left behind various chemicals such as heavy metals and lead. The condition of the site upon acquisition presented very little public access opportunities. Preliminary geotechnical assessment also revealed that much of the site lies below the 100-year flood plain and has relatively poor soil conditions.¹⁶⁵

B. Role of Philadelphia Industrial Development Corporation

As a response to the federal Base Closure and Realignment Commission of the early 1990's, the Navy officially decommissioned its Naval Shipyard and Naval Station in 1996 and 1998.¹⁶⁶ This opened up an opportunity for the redevelopment of the site. During the transition, in 1994 the City of Philadelphia's Mayor's Commission on Defense Conversion published a Community

Reuse Plan that outlined a vision that would guide the redevelopment process for almost a decade.¹⁶⁷ In 2000, the Philadelphia Industrial Development Corporation (PIDC) accepted ownership of the 1000 acre property from the U.S. Department of Defense (Navy).¹⁶⁸

The PIDC is a private, not-for-profit corporation, mostly composed of members from the Chamber of Commerce and the Commerce Department, created to promote economic development and job creation throughout the city. It provides financing programs and real estate resources to businesses and developers to retain and promote employment growth in Philadelphia.¹⁶⁹ The PIDC also coordinates tax incentives and employment programs offered by the City and the State.

According to its 2005 annual report, PIDC has reclaimed over 1800 acres of industrial and commercial land in Philadelphia since its inception in 1958. Since that same time, PIDC boasts of creating over 430,000 jobs in Philadelphia.¹⁷⁰ It has settled 5,100 transactions including \$7.4 billion of financing and five million square feet of leased space.¹⁷¹ These impressive achievements have leveraged over \$13 billion in total project investment.¹⁷²

C. Major Incentives for Acquisition

In an interview, PIDC's John Grady, Senior Vice President of Real Estate, revealed that the most attractive attributes of the Naval Yard property were its unique real estate assets, physical scale, and the long-term investment opportunity it represented. With 2.5 miles of shoreline within the future redevelopment plan area, it is a premier waterfront property. Views across the estuary from the Navy Yard are of green New Jersey shoreline, with the exception of one oil refinery. Streets from within the site that run perpendicular to the river often allow river views from deep within the site. The Delaware Estuary is over 1.5 miles wide at this point, allowing for a broad area for recreational boating. Looking due north from the Navy Yard, one can see expansive views of the sports stadium and city skyline.¹⁷³

The ramps to I-95 at the Navy Yard entrance provide direct highway access routes to New York City and Washington D.C., and to most areas of the immediate Philadelphia and

Southern New Jersey region. The Navy Yard is highly visible from the I-95 as it passes the site, providing an opportunity for public recognition. The scale of the site is comparable in size to Center City Philadelphia.¹⁷⁴ It has the capacity to contain several neighborhoods and with a good mix of use. Mr. Grady also claimed that the site offers a unique opportunity for the PIDC to invest in its operational infrastructure. Most of the public infrastructure on the site is maintained by the PIDC, not the city.¹⁷⁵

Aside from its unique geographic location, the site lies in an area that makes it favorable for future economic development. Certain sections of the property are designated Keystone Opportunity Zones (KOZs) that would provide tax relief from most city and state business and real estate taxes for its employees and residents. The site is eligible for the tax relief up until 2018 under the conditions that it demonstrates job growth and attracts new businesses.¹⁷⁶ In March 2005, the Commonwealth designated the Navy Yard as a Keystone Innovation Zone (KIZ).¹⁷⁷ This designation gives the site and companies who move there access to a wide range of state incentives for technology development. The Navy Yard is also a nationally certified historic district on the National Register of Historic Places. As a result, investment tax credits of up to 20% of renovation costs may be available for qualified building restorations.¹⁷⁸

Another incentive for acquisition for the PIDC was a unique form of liability relief presented by the EPA. In the acquisition agreement of the property from the Navy, the EPA assured PIDC that the Navy had accepted full responsibility for the site contamination, even if the property is leased, sub-leased, or resold.¹⁷⁹ This guarantees that the EPA will not take enforcement action or require clean-up reparations for future lessees or successors. One of the first private investors to see value in the property at the Navy Yard was Kvaerner, a Norwegian shipbuilding company who was looking to expand its operations. In 1997, it signed a 99-year lease for a portion of the property and pledged to invest \$600 million in renovation and modernization of the Navy Yard.¹⁸⁰ As part of the deal, Kvaerner was assured in a “closure letter” from the federal, state, and local government that it would not be responsible for any pre-existing conditions.¹⁸¹ Another factor in Kvaerner’s agreement was a tailored environmental risk insurance policy from the PIDC, providing \$40 million in liability limits that includes coverage against third-party claims resulting from sudden or gradual pollution conditions, clean-up costs

and legal claims for a five-year period.¹⁸² The policy also provided Kvaerner with a business interruption expense protection, which may arise from unknown pollution conditions.¹⁸³ For many businesses that choose to deal with unknown contamination on a site, the purchase of a good environmental insurance policy is an effective strategy in controlling expenses and assuring timely completion of a redevelopment project.¹⁸⁴

D. Remediation and Technical Assistance

The Naval Yard brownfield redevelopment project demands careful planning concerning a variety of technical issues including environmental impacts and utility infrastructure requirements. Many of the buildings at the complex were designed for industrial use, either for research or shipbuilding activities. Much of the contamination on the site was related to the construction and repair of ships. Among the exposures were contamination from gasoline stations operated on-site, fuel tanks, metals, and PCBs and asbestos used in the transformers.¹⁸⁵ Various hazardous organic and inorganic chemicals were stored and used in the power plant, electroplating, paint shop, and foundry operations.¹⁸⁶ Environmental assessment and cleanup began in 1991 to prepare the property for transfer or lease. Much of the information regarding the Navy's remediation procedures in preparation for its transfer to the public domain is not public information. Once the site was acquired by the PIDC, the remediation process focused on asbestos abatement in the buildings, PCB impacted soil removal, and underground storage tank removal.¹⁸⁷ Much of the contaminated soil and "plasting grit" was removed off the site. Groundwater restrictions were put into place and all potable water on the complex is supplied by the City of Philadelphia.¹⁸⁸ Due to the past dense development on the site, much of the utility infrastructure is already in place (water, electricity, gas, communication, and storm and sewer). However, that infrastructure needed to be modernized and expanded to support future development. In 2004, PENNVEST, a state agency that funds stormwater and drinking water projects, approved a \$1,750,013 loan to the Philadelphia Authority for Industrial Development to construct drinking water distribution lines, sanitary sewer collection lines and storm water facilities to eliminate soil and groundwater contamination on 4.5 acres of the 70-acre corporate campus at the Philadelphia Navy Yard.¹⁸⁹ In addition, PA DEP approved an \$18,308,000 loan to the Philadelphia Authority for Industrial Development to develop an 82-acre portion of the

Historic Core at the Navy Yard known as the Town Center.¹⁹⁰ During 2003-2006, PA DEP awarded \$516,454 in funds to the Philadelphia Authority for Industrial Development for the removal and disposal of asbestos and lead-based paint at two former machine shop sites at the Navy Yard.¹⁹¹ The redevelopment of the particular site was selected as a Brownfield Action Team Project by the PA DEP.

Floodplain issues are also of concern across most of the Navy Yard site. As part of the industrial and commercial revitalization and remediation plans of the Philadelphia-Camden waterfront, PIDC contracted Weston Solutions for engineering and technical assistance. They conducted a feasibility assessment examining the geotechnical conditions and the chemical and physical properties of dredged properties. The land on the eastern end of the site consists of fill placed in the Delaware River in the earlier years of the Navy Yard. Below the fill is a highly compressible alluvial soil layer.¹⁹² This may necessitate the use of deep foundation systems including piles and slurry walls. Because most of the site lies within the 100-year floodplain, the consultants recommended an implementation plan for placing 3.8 million cubic yards of dredged materials from the U.S. Army Corps of Engineers Delaware River Deepening Project to raise the elevation of the site above the 100-year floodplain.¹⁹³ PIDC also commissioned the firm to conduct ecological studies, cultural resource assessment and hazardous material investigation.¹⁹⁴

E. The Master Plan

The Master Plan, envisioned and prepared by the PIDC, Liberty/ Synterra Properties, Robert A.M. Stern Architects, and Mayor Street, among others, divides the Naval Yard into five major districts: Historic Core, Corporate Center, Research Park, Marina District, and the East End.¹⁹⁵

The primary objectives of the Master Plan are to:

- Design the site as urban mixed-use that will have around-the-clock activity
- Capitalize on the historical building and landscape assets
- Set a high standard for environmental sustainability through “green” planning and building practices
- Open as much waterfront as possible for convenient public access
- Provide for a integrated open space system

- Establish a clear network of roads and a plan for better connectivity to mass transit¹⁹⁶

The mixed uses proposed for the site include office, retail, research and development, and light industrial. The plan also proposes to include rental and ownership occupied residential development. However, there is currently a deed restriction that prevents this type of development. The PIDC is working on voiding the restriction, and soon hopes to begin to rehabilitate existing buildings in the historic core into rental apartments.¹⁹⁷ The goal of encouraging mixed-use on the property is intended to promote more rapid development at the Navy Yard than any single use would normally provide.¹⁹⁸ This will also encourage around-the-clock activity that will maximize the use of the site. The proposal also offers focal points that will define the image and character of both the Navy Yard as a whole and each district. A proposed marina will be “an active and physical destination, a symbolic reference to The Navy Yard’s history, and a point of contact between the city, its people, and its waterfront.”¹⁹⁹ New streets are also proposed to complete traffic patterns within the site. Most significant is the proposed Diagonal Boulevard that will be the main street for the Corporate Center and an organizing element for the central portion of the Navy Yard.²⁰⁰

Sustainable development is a central premise of the 2004 Naval Yard plan.²⁰¹ The medium-to high-density development proposed by the plan reduces the land consumption as compared to typical low-density suburban development. Mixed-use also reduces automobile traffic when it replaces single-use development. The site is home to 27 acres of wetlands that can provide natural habitat for wildlife, as well as two miles of waterfront that could be opened up to public access.²⁰² Proposed open spaces will be linked by greenway streets, pedestrian routes, and bicycle paths. The plan design also incorporates ‘bioswales’ in the parking lots for stormwater retention and filtering purposes.²⁰³ Newly constructed buildings will have a sustainable design meeting the standard of LEED certification.²⁰⁴ New construction will address energy use, waste product recycling, use of renewable resources, and will be transit-oriented. Mass transit plans for the site include bus connections from the Broad St. subway and a one-mile extension of the SEPTA Broad Street Line.²⁰⁵ A projected \$260 million investment would be necessary to meet these transit goals.²⁰⁶

F. Public Subsidies and Private Investment

John Grady stated that the PIDC had received federal grants from the Economic Development Agency in the amounts of approximately \$5 million for demolition and \$2 million for road construction on the site.²⁰⁷ In total, Mr. Grady estimates receiving \$30 million in federal funding for infrastructure (utilities, roads, demolition) investment.²⁰⁸ It also received a \$50 million grant from the federal government to establish a revolving loan fund.²⁰⁹ Last, the Aker Shipyard project received a large federal grant associated with job training. The state has invested about \$20 million in infrastructure grants. They also made a significant contribution to the development of the Aker project. On the local level, the city has contributed about \$10 million to date in capital funding for infrastructure and planning. The PIDC itself has contributed about \$20 million of funds from the federal revolving loan fund and the proceeds from its leasing and development activity.²¹⁰ In addition, PIDC is in charge of funding roads and mass transit into property. For the 522 acres proposed for development in the master plan, the PIDC estimates about \$150 million in total infrastructure investment required.²¹¹ The proposed investment in infrastructure is capable of leveraging significant private investment. Depending on the development scenario implemented, total private investment for the Navy Yard can range from \$1.4 billion to \$2.2 billion.²¹²

Several years after the acquisition of the property, the PIDC solicited for proposals from local developers to encourage private investment on the site. In 2002, it entered into an agreement with Liberty Property Trust and Synterra Partners as master developers for a 72-acre portion lying adjacent to the property gateway.²¹³ PIDC provided Liberty Properties with a \$7.2 million loan to fund some initial infrastructure and road construction within the property, but no grants were given.²¹⁴ The Corporate Center core covers 72 acres at the gateway to The Navy Yard. It will contain office buildings totaling approximately 1.4 million square feet of new construction.²¹⁵ It will offer 110,000 square feet of potential retail.²¹⁶ The Class A office space will be located in ten to twelve buildings, ranging from three to six stories in height. The location of the Corporate Center is highly visible from the I-95 overpass and will serve as a symbolic landmark for the entire Naval Yard renewal project. At an average rate of one employee per 1,000 square feet of office space, the proposed office development within the

Corporate Center will support 5,600 jobs.²¹⁷ The grand scale of the Navy Yard offers several amenities of a suburban corporate campus including free parking. The Corporate Center is also located within tax advantaged KOZ and KIZ areas.²¹⁸ Qualified companies locating within KOIZ areas are exempt from most city and state business and real estate taxes for up to 15 years.ⁱ

The Navy Yard has been quite successful in shifting its economic base from an industrial base to a corporate/research. Public investment in infrastructure and utilities have helped to attract diverse employers like Kvaerner ASA (shipbuilding), Liberty Property Trust (real estate), AppTec Laboratory Services (biotechnology), Barthco International, Inc. (shipping), Urban Outfitters (retailing), and over fifty-five other private companies which employ over 6,000 people.²¹⁹ Liberty Property and Synterra's first construction project on the site was a LEED-certified Platinum green building called One Crescent Drive in the Corporate Center core.²²⁰ In 2005, the implementation of the Navy Yard master plan continued as Kvaerna/Aker executed a \$1 billion contract to manufacture ten double tankers; Urban Outfitters occupied the first phase of its \$50 million corporate campus; and the \$100 million produce and seafood terminal project was sited at the far east of the property.²²¹ Vitetta, a Philadelphia-based architectural firm, transformed the former marine barracks of 1901 into a state-of-the-art facility.²²²

In 2006, Urban Outfitters retail stores completed the move of its Anthropologie division and 620 employees to the Navy Yard into the newly renovated historic Building 543.²²³ Liberty Property Trust and Synterra Partners completed a construction on 46,000 square foot office building in the Corporate Center home to Unique Industries' new headquarters.²²⁴ Unique Industries is a Philadelphia-based manufacturer and distributor of entertainment supplies. Liberty and Synterra also started construction on a new Data and Operations Center for the Philadelphia Stock Exchange.²²⁵ PIDC continued to improve the public infrastructure of the Navy Yard, starting new construction on road project in the Historic Core and completing the design for streetscape upgrades.²²⁶

ⁱ *Keystone Opportunity Zones are defined areas with greatly reduced or no tax burden for property owners, residents, and businesses (www.koz.newpa.com 2007). An area defined as a KOZ must display evidence of "adverse economic and socioeconomic conditions such as high poverty rates, high unemployment rates, percentage of abandoned or underutilized property, and/or population loss." To be considered a KOZ, a strategy or vision statement must be submitted to demonstrate how targeted growth could impact the surrounding community.*

In 2007, additional progress is expected in the construction of third office building in the Corporate Center core. The Navy Yard Keystone Innovation Zone will continue to advance private, government, and academic investment to establish a regional hub for research and development of engineering sciences.²²⁷ It is led by a partnership of the PIDC, Pennsylvania State University, the U.S. Navy, Ben Franklin Technology Partners, Delaware Valley Industrial Resource Center, and the City of Philadelphia.²²⁸ Ben Franklin Technology will relocate its headquarters from 1835 Market St. in Center City to Building 100, a 32,000-square-foot site at the Navy Yard that used to be home to Marine Corps barracks.²²⁹ Discussions have also begun about the extension of the Broad Street subway and opportunities for residential development.²³⁰

G. Public Involvement and Community Impact

Any base closure involves a community process. It was no different in this case when the Navy transferred the base to PIDC. In 1994, a reuse plan was submitted and posted to the community. According to Mr. Grady, there was little neighborhood resistance or pressure.²³¹ The site's design and location, well-removed from any immediate neighborhood, provided a buffer zone from any disturbances from demolition and construction. It was seen that the office development would counterbalance the residential neighborhood to the north.²³² One issue that arose was PIDC's desire to extend the Broad St. subway line to the Navy Yard complex. This would help PIDC in accomplishing one of its primary goals for the complex: reintegrating the Navy Yard into the fabric of the city.²³³ This could be achieved most effectively by extending the subway system and building roads into the complex. Additional community meetings would have to take place before the implementation of a subway extension.²³⁴

H. Lessons Learned

The redevelopment of the Philadelphia Navy Yard represents a cornerstone of the city's visionary New River City initiative. Successful completion of the Navy Yard project will require extraordinary cooperation between the private and public sector (public-private partnership). All stakeholders involved including the EPA, the city and state officials, PIDC, Liberty Trust Properties/Synterra Partners, private retail outfitters, private business, the historical society,

engineers, planners, landscape architects, and the local unions must work together in harmony if the master plan is to become a success. The PIDC, as a non-profit entity, has the unique leadership role of encouraging private investment into the plan and facilitating the entire development process. Another key factor in financing the purchase was the indemnity provided for by the Navy. This significantly reduced the risks for the PIDC, present lessees, and future successors, while also put the lending institutions at ease. Also, the designation of select areas of the site as Brownfield Action Team Projects will facilitate a more streamlined and efficient remediation process.

The site's good access, high visibility, and impressive size make it an excellent long term investment opportunity. To obtain the best return on the investment, the PIDC must capitalize on the site's unique natural, historical, and regional assets. The several miles of waterfront and existence of wetlands make the site a good natural habitat for wildlife. Recently, a bald eagle pair has taken up residence in one of the trees along the river to raise their young. Making a strong recovery on the endangered species list, the bald eagle pair is symbolic of the revitalization of the 130-year old Navy Yard. The dry docks and multitude of historic buildings on the site offer cultural significance and recreational opportunity. The regional access of the site provided by I-95 is ideal for commuters. This may attract large businesses looking to relocate their headquarters, which may bring thousands of job opportunities. Furthermore, the strategic location of the Corporate Center in KOIZ areas will provide an incentive for corporate relocation.

VII. Good Will Business Park: Sharing a Vision with a West Chester Community

In 1998, Alliance Environmental Systems (AES) began looking for new place to locate its headquarters. The demolition and environmental service company hoped to find a location in the Chester County area. Its search ended when it stumbled across an 8.5 acre brownfields property at 510 E. Union St. in West Chester, Pa.²³⁵

A. Site History

Historic records show that the parcel had been used for a variety of purposes since the late 19th century. It was initially a brick clay quarry, and then served as a municipal landfill. In the early 1940's, National Foam Systems used it as a landfill for its sulfate wastes.²³⁶ Wyeth Pharmaceuticals purchased the site in 1948 along with 30 other acres as the site for its pharmaceutical manufacturing operations.²³⁷ In 1984, Wyeth sold the site to Fermtec Products, Inc. and manufactured pharmaceutical products on the site until 1991.²³⁸ At that time, manufacturing ceased and the site was only used as a storage and distribution center. In 1994, Fermtec vacated and abandoned the site.²³⁹

After over 60 years of its use for a variety of industrial and commercial purposes, the site's contamination had to be addressed by AES before it commenced the purchase. Records showed that the groundwater was contaminated by methylene chloride, which Wyeth used in its penicillin manufacturing process in the 1970s and 1980s.²⁴⁰ Supposedly, Wyeth had worked with the Pa Department of Environmental Protection to monitor and clean the groundwater and storm water from the site. In addition, the site was also contaminated with other chemicals that were disposed in the landfill previous to Wyeth's occupation, before the government regulated disposal of wastes.²⁴¹

After considering the historical uses of the site, AES believed that there probably was not any contamination on the surface of the ground. It initially estimated that the clean-up of the site would cost between \$100,000-\$300,000 under the Land Recycling Act (Act 2), which also would provide liability protection to AES once attainment of cleanup standards have been demonstrated.²⁴² It believed that if the site could be purchased at a reasonable cost then it would be a worthwhile investment.²⁴³

B. Remediation

Alliance Environmental Services purchased the 8.5 acre site for \$100,000 in 1998.²⁴⁴ Senya Isayeff, senior partner of AES, admitted that the offer was very low, and ventured to believe it

was accepted because AES had a very high insurance policy and would not exacerbate the present contamination on the site that would evoke retroactive liability to the original owner of the site that may have been responsible for polluting it.²⁴⁵ AES submitted a notice-of-intent to remediate the site under Act 2 program in July of 1998.²⁴⁶ It worked closely with the Southeast office of the PA DEP to develop risk-based clean-up standards and remediation strategies for the site.²⁴⁷ The approved preliminary remediation plan called for taking a set of soil samples over a three-month period.²⁴⁸ The estimated cost was \$150,000 and would give it a sense of the extent of the existing contamination.²⁴⁹ Based on the results, it could develop a final remediation plan. A Notice of Intent to Remediate was submitted for the site to the DEP on January 29, 2001 and the public notice of the submission was on December 17, 2000.²⁵⁰ In June 2001, the Act 2 Final Report and Addendum were submitted to the DEP in pursuant of Statewide Health Standards and Background Standards for soil and groundwater contamination. Soil samples from various areas on the site revealed quantities of Lead, Arsenic, and Cadmium and the consultants recommended to be cleaned to Statewide Health Standards.²⁵¹ On January 28, 2002, DEP concluded that the designated areas of the site had been cleaned accordingly and had achieved the Statewide Health Standard.²⁵²

C. Public Involvement

Once AES submitted its NIR plan to PA DEP, it had 30 days to inform the public. This can be done by submitting postings in local newspapers or church bulletins and usually involves arranging a meeting to which the community is invited to provide its input into the project. Senya of AES stated that the community was generally open to redevelopment of the site.²⁵³ After all, once the former owner abandoned the site it had quickly turned into a prominent blight on the community. Some of the infrastructure on the site was pillaged for valuable metals leaving an unsightly abandoned carcass of a building behind.²⁵⁴ There was understandable animosity in the community towards the new owners of the site (AES). The community, mostly comprised of 68 low-income apartments immediately associated AES with the people responsible for the present condition of the property.²⁵⁵ Though not responsible for the pollution and current condition of the site, Senya understood the mixed feelings of the community. He stated, "Change is unknown- we had to embrace the community."²⁵⁶ It took two meetings over

the period of two months before trust was established and the community began its constructive criticism and input into the future development of the property.²⁵⁷

D. Major Tax Incentives

By chance, AES received a newsletter from a local environmental consulting company outlining a program sponsored by the EPA called the Federal Brownfields Tax Incentive.²⁵⁸ At the time, one requirement of the incentive was that the community surrounding the site had to meet a specific socio-economic standard to be eligible for the tax break. AES soon discovered that the 8.5-acre site was in fact “located on a census tract with a 29.6% poverty rate, well above the 20% poverty rate threshold set in the guidelines.”²⁵⁹ AES quickly put together a comprehensive report of the site and sent it to PA DEP and EPA. The submission was reviewed and approved within seven calendar days.²⁶⁰ AES was officially certified to use the Federal Brownfields Tax Incentive.

As a general matter, federal tax law does not permit a company to deduct the cost of remediation or demolition of a property in the income year that the expenditure occurs.²⁶¹ In the past, most environmental remediation expenditures had to be capitalized over time, and could not be fully deducted in the year incurred.²⁶² Under the Brownfields Tax Incentive, environmental clean-up costs for properties remediated in select areas are fully deductible in the year in which they were incurred, rather than having to be capitalized. On its website, the EPA asserts that the \$1.5 billion incentive is expected to leverage \$6.0 billion in private investment and return an estimated 14,000 brownfields to productive use.²⁶³ AES estimated that the tax incentive provided it with \$800,000 in tax relief.²⁶⁴

A few years ago, the incentive was on the verge of expiration because of its lack of utilization by the public.²⁶⁵ After becoming alert to this, Senya immediately started a letter writing campaign in attempt to convince Congress to renew the invaluable incentive.²⁶⁶ Fortunately, on December 20, 2006, President Bush signed the Tax Relief and Health Care Act of 2006 which renewed the incentive until December 31, 2007.²⁶⁷ In addition, the incentive now

includes the deduction of expenses for the clean-up of petroleum products (crude oil, crude oil condensates, and natural gasoline) which were previously ineligible.²⁶⁸

AES also utilized local tax incentives for the redevelopment project. It used a municipal tax extension in Chester County called the Local Economic Revitalization Tax Assistance (LERTA), which offers three-year abatement for increased value in property taxes.²⁶⁹ For three years AES only had to pay taxes on the previously determined value of the property.²⁷⁰ Senya provided some tax figures to demonstrate the value of LERTA.

The Total County, School and Borough taxes for the entire property (8.5 acres) before the clean-up and redevelopment: \$1,489.00/year²⁷¹

2006 Total County, School, and Borough taxes for two parcels (4.5 acres) after the expiration of LERTA: \$68,160.00/year²⁷²

Just for the two parcels of land that AES kept (other two were sold and are now tax-exempt) the total taxes increased more than 45 times the original amount when the tax incentive expired.

In addition, AES took advantage of two state programs that offered assistance for brownfield redevelopers in the form of liability relief. The first was the Pennsylvania Act 2 Program, which provides indemnity to the developer from liability issues; the second was the Pennsylvania Act 3 Program, which provides indemnity from liability issues to lenders.²⁷³

Senya Isayeff commends the incentives as a “get out there and do-it-yourself” program that “allows small business owners to make a difference at minimum expense and maximum efficiency.”²⁷⁴ It sends a message to private investors that cleaning the environment can be a bargain and profitable. “Were it not for the federal EPA/IRS Tax Incentive, the state Act 2 liability indemnification, and the local 3-year LERTA program, Senya states “we would not have been able to clean-up the former pharmaceutical manufacturing facility, a brownfields site, and develop Good Will Business Park, a job, income, and tax generating facility in the Borough of West Chester.”²⁷⁵

E. Development and Community Impact

From the beginning, Senya and his company had a vision of giving back to the community. They wanted a portion of the site to be dedicated to mixed uses, both commercial and industrial components. Two acres of the site were sold to the township for \$300,000/acre for the construction of a firehouse.²⁷⁶ No property taxes are owed for that parcel in perpetuity of township ownership. While this may have not been a financial benefit for the community, to some a more important intangible benefit was gained. A 30% increase in volunteers was seen at the new firehouse after construction was complete.²⁷⁷ The new location of the site and improved accommodations also reduced the response time to fires significantly. Subsequently, Senya went as far as to say that PA Act 2 and the EPA have actually saved lives with their incentive programs.²⁷⁸ Residents were initially concerned with the noise and increased truck traffic on the site. Upon the completion of construction though, it was an immediate success. Children from the community loved the firehouse and often helped the firemen wash the trucks.²⁷⁹ An immeasurable sense of volunteerism was instilled in the community.

A second parcel was sold to a senior center for \$2.86 million.²⁸⁰ Soon after, the facility leased one building on the property to house a district court.²⁸¹ No property taxes are owed on that site either because of the senior center's charitable status. The presence of the district court and the police cars that drove daily to it, increased the sense of security in the neighborhood. It also slowed the speed of traffic around the site, delighting the local residents who had always had concerns about their children playing outside.²⁸²

AES decided to keep 1.3 acres for its company headquarters. In that property, 10,000 sq. ft. of building space is used by AES and 4,000 sq. ft. is leased to the Chester County Historical Society.²⁸³ The remaining parcel, 3.2 acres, is leased as a business plaza that is home to a public indoor skateboard park, an accompanying hobby and pro-shop, a pizza shop, a private water treatment company, an art gallery, and Chester County Cares social service agency.²⁸⁴ The skateboard park provides a recreational opportunity for thousands of youths a month and is the first of its kind to be built on a brownfield.²⁸⁵

When the project was completed, Senya estimated that the remediation and demolition of the site cost about \$1.3 million.²⁸⁶ The estimated building hard costs for the three buildings constructed was \$6.5 million.²⁸⁷ The soft costs that included legal, planning, and architectural fees were estimated to be about \$500,000.²⁸⁸ The entire 8.5-acre site was purchased for \$100,000. Properties adjacent to and nearby the Goodwill Business Park have increased in value, which their owners attribute to the AES redevelopment project. In addition, two blocks away from the Business Park, Habitat for Humanity is constructing 17 new homes and a 12,000 sq. ft retail strip mall has been completed and occupied.²⁸⁹ Today, an acre of industrial land in West Chester, Pa sells for \$1 million (Chester County has become the richest county in the state).²⁹⁰ West Chester has long recognized and embraced the benefits of land recycling at many properties in its borough. The Chester County Industrial Development Authority has the most active Brownfield Task Force in all of the suburban metropolitan area.²⁹¹

AES' brownfield redevelopment project created at least 50 new full-time jobs and numerous part-time positions on site.²⁹² It remediated an environmental hazard and made the land suitable for economic reuse, while returning it to a taxable asset for the community. The Good Will Business Park was a tremendous marketing success story and a direct benefit of a good, trusting relationship with the community. By embracing the community, AES avoided costly legal fees, public relations campaigns and construction delays. It demonstrates that brownfield redevelopment can be a win-win situation for the developer, the community, and the environment.

F. Lessons Learned

The Goodwill Business Park demonstrates unique entrepreneurial spirit and initiative on behalf of Alliance Environmental Systems. A developer or investor must research the federal, state, and local tax incentives available for the site proposed for remediation. In this case study, the investor was able to utilize incentives on all three levels of government: the EPA/IRS Federal Brownfields Tax Incentive, the PA LRA Act 2 incentives, and LERTA. In total, AES estimated it received over \$850,000 in tax relief (over 8 times the purchase price). By receiving this tax

relief for a period of time, it allowed AES to establish itself as a business and recoup the hard costs of demolition, clean-up, and construction and the soft costs of planning and legal fees. After receiving this ‘reprieve’ from government, AES decided that it wanted to give back something to the community.²⁹³ The Good Will Business Park was designed to reinvest in the community by providing space for a firehouse, district court house, senior center, social service agency, a historical society, an art gallery, and an indoor youth skateboard park and hobby shop. As a result, AES not only remediated an environmental hazard but boosted community spirit and economic development in the surrounding community. It also marked the first time ever that a firehouse and a skateboard park were built on a remediated brownfield.²⁹⁴ This case study also demonstrates the cooperation, willingness, and speed on the part of the state DEP in facilitating the tax relief application process and the remediation procedures on the site. Finally, the case study demonstrated that is a good idea to purchase the site as a whole, and then divide and sell off sections to seek maximum profit gain. Although, it is evident that AES’ main priority was not to turn a remarkable profit, it was able to purchase the property at a very low price (\$100,000) and sell off half of it for a net gain of almost \$2 million.²⁹⁵ It was able to act as a leasing manager for a significant amount of commercial space on the site that gives it a nice steady flow of cash to help sustain its business endeavors.

VIII. Schmidt’s Brewery Site: A Controversial Developer in a Sensitive Community

A. History of Site and Developer

The site of this brownfield redevelopment project was once home to the 140-year old Schmidt’s Brewery. Situated at the intersection of 2nd Street and Girard Avenue, in the Northern Liberties’ section of Philadelphia, the odd-shaped site is located just near the Delaware River and at the base of a designated American Street Empowerment Zone. Its unique location makes it eligible for Tax Incremental Financing (TIFs) benefits if its investor chooses to build a commercial shopping center that would encourage further economic development.²⁹⁶

In 2000, a controversial developer named Bart Blatstein won a bid at a local sheriff’s sale and purchased the 12-acre former Schmidt’s Brewery site for a mere \$1.8 million.²⁹⁷ Blatstein,

and his company Tower Investments, are best known for their development of Delaware Avenue in South Philadelphia, where they lured big-box retail outlets such as Home Depot, Wal Mart, and a United Artists Theater to former industrial sites.²⁹⁸ Since the purchase, Blatstein has continued to accumulate more property in Northern Liberties. Tower Investments currently owns 17 percent of the land in Northern Liberties.²⁹⁹ Blatstein is quickly making a name for himself as *the* developer in Philadelphia by enlisting in several other high-profile development proposals in North Philadelphia, Penn Landing, and suburban Coatesville.³⁰⁰ Upon acquisition of the property, Blatstein publicly noted that the North Philadelphia corridor is in need of major retail and residential development. A commercial retail strip on Blatstein's newly acquired land would entice new development in the surrounding area and possibly unite the corridor with the rest of the city. It would also grant him eligibility for the \$4 million TIF incentive proposed by the City.³⁰¹

B. The Community of Northern Liberties

Northern Liberties has experienced a tremendous amount of change during the last 300 years. When the first settlers moved to Philadelphia and purchased land within the city limits they were given a free parcel of land in the “northern wilderness” on the city's outskirts. Over time, these “liberty lands” were transformed into a farming community and eventually a middle class suburb. During the Industrial Revolution, Northern Liberties was home to a booming manufacturing district with several successful lumberyards and breweries.³⁰² The onset of deindustrialization in the 1950's and the subsequent mass migration of the middle class to the suburbs had a drastic effect on the neighborhood and it quickly evolved into an urban wasteland of crime and poverty.³⁰³

In the late 1970's, artists began to migrate into the community looking for cheap rent and large spaces for their studios.³⁰⁴ The land was highly undervalued and real estate visionaries had begun to take interest in the area. When the nation's economy fell in the late 1980's many speculators fled. Crime, prostitution, and homelessness lurked in many of the abandoned buildings and vacant land.³⁰⁵ However, people with hope and vision that were determined to purchase a dream house for cheap found Northern Liberties appealing. Undervalued property

and a variety of unique bars and restaurants enticed a slow trickle of buyers and soon a community began to form.³⁰⁶ In 1996, neighborhood residents worked together to transform a 2-acre Superfund site to a beautiful community garden and neighborhood park.³⁰⁷ The collaborative efforts of the young and old, black and white, and creative and hard-working, helped transform the community. The Northern Liberties of today is a diverse community brimming with pride that strives to unite its population of over 4,000.³⁰⁸

C. Remediation Plans

On May 16, 2003, Tower Investments submitted a Notice of Intent to Remediate to the DEP stating that the “soil is contaminated with fuel oil no. 6, inorganics, leaded gasoline, other organics, PAH and PCB and the groundwater is contaminated with chlorinated solvents, fuel oil no. 6, leaded gasoline, and other inorganics.”³⁰⁹ Tower Investments proposed to remediate the site to meet special industrial area requirements.³¹⁰ A posting in the Philadelphia Daily News on the same date summarized the proposed remediation measures to “include the closure of four underground storage tanks, removal of containerized wastes and above ground storage residuals, the removal of asbestos-containing materials and the removal of PCB-containing materials.”³¹¹ It also revealed that the property will be used for non-residential purposes. In March 2004, another Notice of Intent to Remediate was submitted to DEP announcing that the future use of the property will be a combination of residential and commercial purposes.³¹² Tower Investments was considering “capping” most of the soil beneath the structures as part of the redevelopment procedures.³¹³ According to the DEP website, the site’s remediation is “still in progress” making it unclear which clean-up standard it plans to attain.³¹⁴ According to Jon Edelstein, the Schmidt’s Brewery remedial plan has been deemed deficient multiple times. However, Edelstein claims that the site was never deemed a public health hazard.³¹⁵

As with many brownfield projects it is often difficult to secure a lender to fund the remediation. For a newspaper article in 2000, Bart Blatstein stated that First Republic Bank was “much more aggressive” about getting the loan than other lending institutions that he usually uses, and more flexible about conditions. Blatstein continues, “There are 120 things that have to be done just to get this site clean for development.” He added, “This was a shotgun type of a

wedding. All or nothing. And First Republic stepped up to the plate in a flash.”³¹⁶ First Republic, unique among most banks, has become well-known for arranging crucial early financing for high-profile urban projects. For the veteran developer Bart Blatstein, it provided him \$3.9 million to demolish the Schmidt’s Brewery Site and prepare the site for commercial reuse.³¹⁷

Along with the remediation activities, Pennsylvania’s Land Recycling Act requires a developer to “develop and implement” a public involvement program (PIP) if the municipality requests it. The developer is required to post the summarized findings of any risk assessment plan and remedial investigation report in a local newspaper or community bulletin. Any public comments in response to the PIP must be included in the reports submitted to the DEP.³¹⁸ Blatstein and Tower Investments failed to submit a PIP, despite the mayor’s request in 2004.³¹⁹ Residents were furiously complaining that construction and remediation were already being performed on the site without any feedback from the neighbors. Philadelphia’s brownfields specialist, John Edelstein, acknowledged that since the proposed development is in such close proximity to a thriving residential neighborhood, there must be a higher degree of sensitivity.³²⁰

D. A Laundry List of Environmental Violations

First, local neighborhood residents feared that new construction on the site would disturb and possibly displace existing contaminants and pollutants into the surrounding community. On February 1, 2001, the DEP issued a violation to Tower for failing to remove RACM (regulated asbestos containing material) prior to demolition.³²¹ Tower accused several contractors of negligence for the incident and terminated them from the contract. The demolition company filed a lawsuit against Tower Investments for failing to remove RACM and other hazardous materials before demolition as it had agreed to do under contract.³²² On February 28, 2002, a neighbor noticed that work was being conducted on the site in the middle of the night and called the police.³²³ An independent investigation did not reveal any documentation of the charges levied against the developer or result in any cease work orders, but the neighborhood suspicion skyrocketed. In addition, the president of Northern Liberties Neighborhood Association (NLNA) wrote a letter to Bart Blatstein stating that several neighbors have issued a variety of complaints

regarding the behavior and demeanor of the demolition crew and would therefore like to request that Tower Investments be willing to take full responsibility for the activities of its employees and contracted agents at its properties.³²⁴ Blatstein failed to respond to the letter, reinforcing his former position that he cannot be held responsible for all the activities of his contractors.

On June 26, 2002, another gross act of negligence unfolded when just after midnight police found Tower Investment's contractor Philadelphia Building Group's president, Moneer Farhat, burying approximately 100 cubic yards of "sand" contaminated with PCB's under six feet of earth.³²⁵ Farhat told officers he was burying the PCB sand "to make it safe until he could notify the state," according to the police report.³²⁶ City and state officials claimed nothing happened with regards to the transport of the dangerous chemicals. City officials told an investigative reporter from the City Paper that no documentation existed regarding the incident and therefore had no knowledge of its occurrence. No violations were reported on the date the incident was witnessed, according to an initial "Community Right to Know Request" form.³²⁷ When a resident appealed to the DEP to investigate further, a lawyer for DEP, Andy Hartzell, dismissed concerns because an official in the City Law Department, Patrick O'Neill, claimed it was nothing more than a "drunk guy on a backhoe."³²⁸ Both the criminal and civil authorities who investigated the matter independently concluded that there was no burying or dumping of PCBs, asbestos, or other hazardous materials. However, in an email to a concerned community activist, a DEP official investigating the matter agreed that "it [the Moneer incident] certainly reeks of suspicion...but sometimes there are other explanations..."³²⁹

Further "code violations" surfaced after community members launched an investigation into Tower's activities. Although at first denied by city officials and absent in a "Community Right to Know Request" by the neighborhood, investigators discovered the City had issued a violation to Tower Investments on June 27, 2002.³³⁰ The Philadelphia Department of Licenses and Inspection (L&I) issued a citation to Northern Liberties Development Inc. for allowing "hazardous materials" to run into a city waterway and failing to notify the Fire Department of the discovery of PCBs in the soil so they could incorporate into their fire safety plan.³³¹ L&I also claimed that the accused party neglected to follow federal standards for PCB disposal, violated asbestos control regulation, and failed to provide the city with documentation on environmental

remediation plans.³³² The Northern Liberties Development Company was an affiliate of Tower Investments, primarily owned by Bart Blatstein. The citation included a \$5,000 fine to settle the violation.³³³

Local residents blamed the initial phases of Blatstein's construction projects for flooding their basements after the torrential rain storms. They claimed washers, dryers, and even cars were destroyed as a result of the flooding.³³⁴ Furthermore, Tower's primary plan for remediation was to "cap" a majority of the site to contain the pollutants in certain areas. This method of remediation involves pouring asphalt over large areas of the site, potentially causing even more flooding. When confronted about the issue, representatives from Tower claimed that they would approach the city as the neighborhood's partners to petition for more capacity in the drainage systems. Many residents remained furious and threatened to withdrawal any support and consensus for Blatstein's construction plans until the issue was resolved.³³⁵

During a community meeting held by the Northern Liberties Neighborhood Association (NLNA) that the researcher attended on October 27, 2005, a number of neighborhood residents voiced concerns about the possibility of different contaminants and pollutants getting blown or washed onto their adjacent properties. They primarily worried that PCBs would wash onto their property and contaminate their water supply. They also demanded to know exactly what type of chemicals had been found on the site and what the associated health risks were. The city's brownfield manager, John Edelstein, claimed that he was not at liberty to discuss the specific chemicals but he recommended the citizens go to a local library to review the public information available on record. The citizens were further incensed when Edelstein, in a local paper, accused the community of exaggerating the environmental concerns in order to delay development of the site.³³⁶ Expressions of neighborhood discontent, anxiety, and concern are familiar topics in the public meetings surrounding the discussion of the proposed development on the site.

In an interview, Jon Edelstein revealed several other factors regarding the neighborhoods concerns that should be taken into consideration. He stated that most of the discontent arose when Tower Investments refused to grant the neighborhood residents designated parking spaces upon the construction of the development.³³⁷ He claimed that residents lashed out at Tower

because of their anger over a predicted surge in competition for neighborhood parking spaces when the development was completed. Second, Northern Liberties residents, in attempt to further halt construction claimed that they were a community that demanded environmental justice considerations.³³⁸ When in fact the socio-economic status of the community showed that the average market price for homes in the neighborhood around the proposed development approach or exceed a half million dollars and the residents are mostly Caucasian. In summary, Mr. Edelstein believed that the neighborhood residents have a lot of money and time on their hands “to milk” the redevelopment process.³³⁹

Bart has decidedly changed his mind about building a sprawling retail complex. In a statement to the *New York Times* in 2005, Blatstein claimed he planned to build a \$100 million development, to be completed in 2007, on the former Schmidt’s site.³⁴⁰ The complex will include 1,000 apartments, half a million square feet of retail space and 100,000 square feet for “edgy, creative types”, he told the *New York Times*.³⁴¹ A zoning variance was necessary from the city because the lot was originally zoned for industrial and commercial use. Today, construction on the site is still ongoing, with only a few apartment buildings approaching completion. Much of the site still contains large piles of rubble and debris and huge mounds of dirt.

E. A Developer’s Ill-Advised Choices

Soon after the City Department of Licenses and Inspections issued the environmental code violations against Tower Investments related to the June 26/27, 2002, incident, Blatstein claimed he had fired Philadelphia Building Group (PBG) from all of his Northern Liberties projects and that he would not rehire them for any future projects.³⁴² However, a year later neighborhood residents claimed to have seen PBG back on the premises of the Schmidt’s site doing work. Despite the reckless and irresponsible behavior of the Group, Blatstein chose to renege on his agreement with the NLNA to terminate his dealings with PBG.³⁴³ This was confirmed when an outside group, Soil Safe, filed a lawsuit against PBG for contract issues after the time when Blatstein stated that PBG was terminated from working on the site.³⁴⁴ On June 8, 2004, PBG paid \$20,000 in fines for multiple environmental violations throughout the city, including the demolitions of the Ortlieb’s and Schmidt’s site.³⁴⁵

The developer's response over the disturbing and reckless behavior of his contractor, PBG, is very unsettling. Unfortunately, the incident only raises questions, while providing very few answers. While there are conflicting beliefs that he and the city had made great strides to cover up or downplay the incident, it is clear that he had a chance to mitigate its impact by reacting sensibly and responsibly and permanently terminating PBG from future work on the site. Instead, he misled the community into thinking he had, when it is likely that PBG was just asked to keep a lower profile on the site. Is this incident indicative of the entrenched bureaucracy of real estate development in the city of Philadelphia? If Bart Blatstein did not have such a large stake in numerous other revitalization projects across the city, would he have gotten away with as many missteps as he did? Does Blatstein's well-intentioned efforts to revitalize other economically depressed areas throughout the city excuse his behavior on this particular development project? Despite Tower's role in misleading and infuriating the Northern Liberties' community, the city claims the public involvement process at the Schmidt's site was fairly implemented. What does this say about the effectiveness of the state-mandated public involvement process as a whole?

Throughout the process, he chose not to involve the DEP in the public involvement plan when they quite possibly could have been effective in easing the community's concerns. Bart Blatstein and Tower Investments chose to take the more time-consuming and costly road in redeveloping the Schmidt's site when he could have easily avoided it. While the site is taking much longer to redevelop than anticipated, Blatstein is proud of his accomplishments thus far. Like many experienced investors, Blatstein is focusing his efforts elsewhere in the city, while reaping large financial returns on past deals.

F. Other Tower Investment Development Projects in Philadelphia

In 2003, Bart Blatstein sold the two shopping centers he developed on Columbus Boulevard in South Philadelphia—Riverview Plaza and Columbus Crossing—for \$75 million.³⁴⁶ The transaction represented about 60 percent of Blatstein's South Philadelphia property. One newspaper reporter commended the developer for acquiring the once-abandoned industrial sites

in 1986, when others in real estate saw little future for the area. The reporter writes, “Bart created something out of nothing...”³⁴⁷

In September 2004, the Redevelopment Authority approved the selection of Tower Investments as the developer for the Avenue North Project, a mixed used residential and entertainment complex at Broad Street and Cecil B. Moore Avenue in an economically depressed North Philadelphia corridor.³⁴⁸ In September 2005, City Councilman Darrell Clark announced that he would be seeking \$5 million in tax breaks (TIFs) for Blatstein’s Avenue North Project from the PIDC.³⁴⁹ January 2007 marked the grand opening of the Pearl Theatre, a 1,300 seat, seven-screen, state-of-the-art movie theatre in North Philadelphia. It serves as a key component of the \$100 million anchor project of the Avenue North revitalization program undertaken by Blatstein’s Tower Investments Inc.³⁵⁰ At the opening, the developer stated, “The Pearl is about doing a good thing, yes, and being a part of the rebirth and revitalization of the neighborhood. It demonstrates that through the efforts of many, first-class development can occur in economically-disadvantaged areas.”³⁵¹ The new theater joined 30 retail storefronts, the Shops at Avenue North, and a 12-story student housing tower called the Edge, adjacent to Temple University’s campus.³⁵²

Governor Ed Rendell originally conceived the Avenue North idea when he was mayor in 1993. However, he failed to find a developer who was confident in the investment.³⁵³ Governor Rendell stated at the opening, “We’ve done a good job with housing [in North Philadelphia], but without commercial development it means little. Now that we have both, it means a great deal for the community and for the city. This is going to be a permanent contributor to change,” adding that when New York developers failed to take up the challenge, “It took a Philly boy, Bart Blatstein, to get it done.”³⁵⁴

According to reports, the development went smoothly and there was little complaint from the neighbors. Blatstein claimed he was proud that 30 percent of the work on the complex was done by minority contractors and that it was important to be inclusive with the surrounding community.³⁵⁵ A resident and barber who cuts hair around the corner, thinks the theater would be better for nearby businesses and for the young people in the community.³⁵⁶

The development processes of the Blatstein's two major projects in Northern Liberties and North Broad Street seem to be as different as night and day. The Schmidt's site was notable for multiple environmental violations during remediation: improper removal of asbestos, allowing hazardous run-off into waterways, excessive dust release, and alleged illegal burial of dangerous PCBs. The public involvement plan mandated by Act 2 was ill-conceived and poorly implemented leaving community members furious over the developer's negligence and deceit. Demolition and remediation had begun long before the community or even the DEP was formally notified. The city had several opportunities to intervene and facilitate a smoother community process and failed, but chose to turn the other cheek because of an entrenched relationship with the developer on numerous other projects in the city. Seven years after the purchase of the property the development is not close to being finished.

On the other hand, Blatstein's Avenue North Project was a seemingly run-away success in the economically desperate North Philadelphia Corridor. It provided a place for neighborhood children to go to watch movies instead of hanging out on the street. It provided safe student housing for an expanding Temple University. Last, it brought commercial and retail stores to the area that never would have considered the area before, providing job opportunities and eliciting future commercial development.

G. Lessons Learned

Although Blatstein is an extremely controversial developer that some neighborhoods understandably distrust, it cannot be denied that Bart Blatstein and Tower Investments have played a large role in revitalizing neighborhoods in Philadelphia that many developers would have never considered investing in. Many of these brownfield sites would have remained blighted, neglected, and contaminated today, had Blatstein not had the vision to revitalize them. But his capacity as a visionary and experienced developer, does not excuse the irresponsible actions employed at the Schmidt's site. He must be held accountable for his actions, regardless of his past accomplishments and future real-estate bids in the city. The community's input and perspective should command more respect and consideration than what was demonstrated at this

site. A developer must realize that when taking on a brownfield reclamation project, his or her decisions and actions affect how other future brownfield redevelopment processes across the country are perceived by the public. Bart Blatstein made a conscious choice to ignore the community's voice. In doing so, he created bad publicity for Tower Investments and many other brownfield redevelopers who may now face fearful communities that are aware of the situation that occurred on the Schmidt's site in Northern Liberties. Blatstein's stubbornness only contributed to the cloud of controversy and bad publicity that has followed many of his redevelopment projects. Fortunately, not all private developers that invest in brownfields share his same attitude. One major brownfield developer in the Philadelphia area, O'Neill Properties, claims that it refuses to implement any redevelopment project without majority support from the community; it cites extensive project delays and extra costs as primary reasons for the importance of executing a meaningful public involvement process.³⁵⁷

IX. Prescription for Brownfields

A. Recommendations for Local Government

Local government officials play an important role by guiding public subsidies, supporting fair land values, coordinating permitting, providing information, and regulating contamination on a property.³⁵⁸ Local governments also stand to make large gains if brownfields are redeveloped. The appearance of taking positive measure in reclaiming vacant lots can be great for politicians looking to be reelected. Many development projects also yield considerable tax gain for the city government. Owners of many abandoned properties often fail to pay taxes and therefore contribute no revenue to the local government. For both political and fiscal reasons, doing nothing about brownfields is no longer an option.³⁵⁹

The first recommendation for local officials is to rezone brownfield properties to meet realistic demands. For example, if an industrially-zoned brownfield is not likely to be redeveloped for industrial purposes, officials should proactively rezone it to attract investment. If officials fail to rezone for future realistic land use, properties may reflect lower prices for well-

located, viable brownfields.³⁶⁰ In two of the case studies analyzed above, flexibility of zoning practices played a critical part in the properties end use and impact on surrounding neighborhood. In the third case study, the Navy Yard, the PIDC is currently getting the residential zoning restriction amended on the property in order to maximize the use and economic impact of the property. John Grady indicated that a portion of the property will be rezoned for residential purposes. As demonstrated in the Act 2's mandatory public involvement plan, the community must always be informed and given time to comment if zoning changes are proposed. Under no circumstances should a local government allow a developer to use zoning considerations to bargain with the community, as suggested by the events at the Schmidt's Brewery site.

A second recommendation for a local government is to develop an inventory of brownfield properties.³⁶¹ Local government should collect as much public data as possible about contaminated properties as they exist (assessments, listed sites, past uses, etc...) and make the information available to interested parties.³⁶² According to Mr. Edelstein, there is no city-maintained database that provides a comprehensive inventory of the brownfield sites available for redevelopment in Philadelphia.³⁶³ However, the EPA is currently implementing its Assessment Cleanup and Redevelopment Exchange System (ACRES) that requires all EPA brownfield grant recipients that use federal money to assess or clean a site to submit pertinent redevelopment information into the database.³⁶⁴ The objective of the ACRES program is to provide means for easier quantification of the success of local brownfield programs across the country.³⁶⁵

Third, local officials should rank brownfields in the order according to which they need assistance. Officials should prioritize designated brownfields that need immediate attention based on risk to public health or economic development potential.³⁶⁶ Brownfield properties that may be used for land banking or long term interim uses should be ranked lower, while properties with intended use as economic development or open space should be ranked higher.³⁶⁷ In Philadelphia's brownfield program, properties located along the Delaware and Schuylkill riverfront are given priority in conjunction with the city's New River City Project. Without

proper management, the local government runs the risk of misallocating scarce brownfield resources to potential investors who would otherwise relocate to suburban greenfields.³⁶⁸

A fourth recommendation is to have local government establish an intermediary organization to serve a leadership role and provide support in the redevelopment process. The involvement of not-for profit companies in the brownfield arena is not uncommon. Typically, they seek to revitalize properties with good market potential that may be too small or large or troubled for private investors to consider.³⁶⁹ Most of these non-profit companies take title to the site. Some proactively prepare industrial sites for development, which may keep remediation costs down for the developer.³⁷⁰ The Philadelphia Industrial Development Corporation has played an integral part in acquiring the site from the Navy, conducting some remedial preparation, and soliciting private investors to develop designated districts. Public-private partnerships are essential for successful projects as they facilitate cooperation between the different levels of government involved.

A fifth recommendation for local government is to appoint a coordinator to serve as a reference point for brownfield management in the city. In Philadelphia, the brownfield program is housed under the Department of Commerce, and its coordinator's title is Industrial Reuse Manager, reflecting its primary objective to reclaim brownfields for economic development. The Department also administers federal and state business incentive programs, provides loans, and provides site selection and land acquisition services to any companies that are interested in relocating or expanding into the Philadelphia market. Because it administers the KOZ program and incentive programs in the city, the Department is well-versed in its locations and benefits and could appropriately guide developers to certain sites. In addition, specialized entities such as Pennsylvania's Brownfield Action Teams can help promote cooperation and expedite the developing process.

A sixth recommendation for local government is to develop an initiative that will remediate blighted properties with little economic value as green space or neighborhood facilities. It is a reality that market demand is not sufficient for a large percentage of brownfield nationwide. It is a worthy objective for the local government to promote the cleaning and

beautification of these properties to revitalize community spirit. Mayors Street's Neighborhood Transformation Initiative is a good example of a local government sponsored initiative to reduce urban blight through the demolition of abandoned buildings and clearing of debris and trash from vacant lots. The non-profit organization, Philadelphia Green, avidly supported by local government officials, has achieved national recognition for its efforts in cleaning, greening, and maintaining vacant lots. It also has been responsible for initiating numerous community gardens as long term interim uses on some brownfield properties. Greensgrow is located on a brownfield site in North Philadelphia and has been a run-way success in the local community by providing fresh vegetables to a number of local restaurants and markets.

B. Recommendations for Developers

The following recommendations for developers stem from the case study analyses presented above. First, if possible, it is a good idea to select a site that is highly visible, heavily trafficked, and in the path of future public investment. An ideal site would have good road access and be within close proximity to public transportation. A developer should also consider the natural features of a site—waterfront, good land configuration, wetlands. The Philadelphia Naval Yard project holds excellent opportunities for public recreation through its waterfront property, piers, and dry docks. A major highway, I-95, provides excellent regional access for commuters and residents alike. The enormous scale of the Navy Yard makes it an especially unique acquisition.

A second recommendation for developers is to buy a larger site, clean all of it, and sell off part of it later.³⁷¹ Alliance Environmental Systems made a good decision to purchase all 8.5 acres of the former pharmaceutical giant's property, remediate all of it, and then sell 4 acres to the township and another private entity for a considerable profit. For most developers looking to make serious returns on their investment, the larger the site the more potential for profit.

A third recommendation would be to purchase the property as heavily discounted as possible, obtain the property at foreclosure, or purchase the mortgage of the property. AES was able to negotiate an extremely low price of only \$100,000 for all 8.5 acres of the West Chester property because the seller, Wyeth, was impressed by Alliance's ample insurance policy and

therefore diminished likelihood that Wyeth would be liable in the future for the contamination. Bart Blatstein of Tower Investments purchased the former 12-acre Schmidt's Brewery site for a low \$1.8 million at a city operated sheriff's sale.

A fourth recommendation to consider when redeveloping a brownfield is to build a high density, mixed-use development. Incorporating commercial, retail, and/or residential plans into a development plan can reap large profits.³⁷² Building at higher density can also distribute expenses over a larger project.³⁷³ Public subsidies may also be larger for a larger project. According to its Master Plan, the Philadelphia Naval Yard wants to maximize activity on the site by encouraging 24-hour use of its site. During the day it will rely on the commercial activity of the regional business complex. After working hours it hopes to attract joggers, walkers, bikers, and other recreational activity, while in the evening it hopes to lure retail shoppers and restaurant and bar patrons. A change in zoning will allow the Naval Yard site to be used for residential purposes and both rentals and home ownership will be encouraged. AES' Good Will Business Park is an excellent example of mixed-use for commercial, retail, and recreation purposes. The Business Park is the first redeveloped brownfield to have a public firehouse and an indoor skateboard park on site. It is home to Alliance Environmental Services' corporate headquarters, a senior center, and a district court, while also providing lease space to a historical society, an art gallery, a hobby shop, and a pizza shop. A diversity of uses on a site will in most cases bring maximum returns on initial investments. If possible, having the site rezoned for different uses before purchase may save costly delays in the long run and add critical value to the property.

A fifth recommendation to consider for developers is to design the remediation plan of the site to minimize costs. A developer may be able to save costs and avoid project delays by 'capping', or building a parking lot over contaminated soil to contain it; effectively seal all underground chambers that may hold hazardous materials; and avoid future excavation by putting utilities above ground.³⁷⁴ However, by no means should a developer cut corners and develop a deficient remediation plan that would put the community's health at risk. Do not forget to consider the impact on the surrounding neighborhood and the need to involve the public in your development plan. A cautionary example of what can happen if a developer fails to effectively involve the community can be found in Tower Investments' plan to remediate the

Schmidt's site. Bart Blatstein failed to submit a sufficient remediation plan to the DEP and was cited several times for violating local and state environmental laws. It took him almost a year after the Notice of Intent to Remediate was posted to hold a public meeting to discuss the community's concern.³⁷⁵ When a public meeting was finally scheduled, it occurred at a most inconvenient time, in the middle of the busy winter holiday season, when the community was most pressed for time. Some members of the community believed it was purposely scheduled to avoid extensive public participation in the redevelopment project.³⁷⁶

As a final recommendation for developers, it is absolutely critical for truly successful brownfield redevelopment projects to embrace the local community and consider their benefit. After receiving a reprieve from the local, state, and federal governments through tax incentives and liability protection, Senya Isayeff of Alliance Environmental Systems decided he wanted to reinvigorate the surrounding community by providing economic, civic, and recreational opportunities on the former brownfield site.³⁷⁷ The vision of Alliance Environmental Systems and the creation of Good Will Business Park was remarkable because it embraced the concept of redevelopment of a brownfield not solely for the benefit of the developer, but also for the benefit of the community. This successful venture reflected the mission of the DEP and the Pennsylvania Land Recycling Program, that were created not only to facilitate the cleanup of these polluted sites, but to have the redevelopment benefit the surrounding communities that had tolerated the blight for so long.³⁷⁸

X. Conclusion

The cumulative effect of the lack of brownfield development nationwide has been to accelerate urban sprawl and encourage urban blight and economic distress. The recent regulatory reforms and state and local initiatives designed to provide information and financial incentives to private developers have virtually eliminated uncertainty and liability for innocent landowners and drastically decreased cleanup costs. They have created opportunities for developers knowledgeable about the problem who may find undervalued and underutilized properties they can turn into considerable profit. More importantly, the case studies analyzed above demonstrate that non-environmental factors and willingness to reinvest in the community play an increasingly significant role in the successful outcome of the project. The greater Philadelphia area has a

wealth of brownfields of all shapes and sizes that represent enormous economic and social value. The examples above demonstrate that creativity, entrepreneurship, community engagement, and collective vision can transform brownfields into rich developments that will improve the quality of life for the community as a whole.

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