



BROWNFIELD REDEVELOPMENT AN OPPORTUNITY FOR SUCCESS

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Executive Summary

Various governmental and private organizations estimate that there are over 450,000 to as many as 1.2 million brownfields in the USA. The EPA defines the term “brownfields site” as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

While looking through a skilled lens the right team of professionals will assist with the revitalization of blighted, vacant, or underutilized properties. These properties can be transformative for communities and local municipalities. It has been shown that the redevelopment of brownfield properties can improve the job market, add to the local tax revenue, improve public health, and help to preserve a community’s culture.

This white paper is intended to present a universal approach to how a brownfield redevelopment project can positively impact communities and local governments.

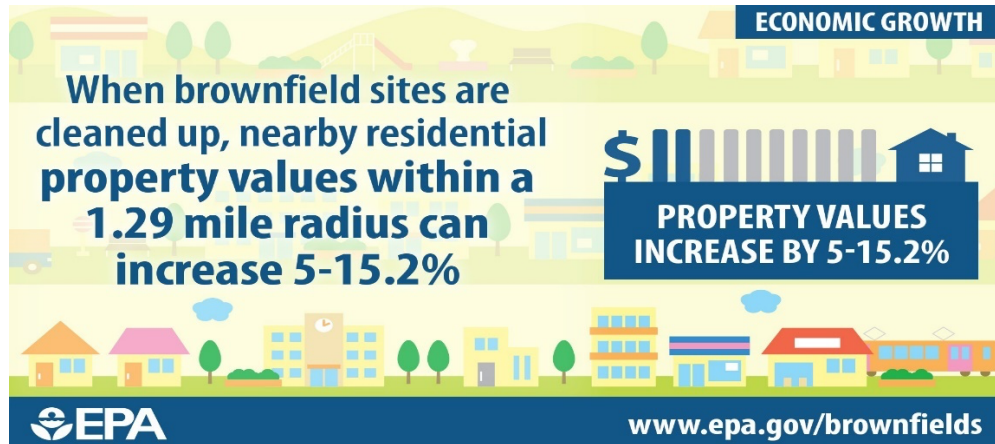
The intended audience for this white paper is real estate professionals, community and economic development authorities, and municipal officials.



Methodology

A literature review of state and federal publications, industry white papers, peer reviewed, case studies, and current online articles were used to obtain data for this paper.

This strategy allowed for the qualification of industry developed data by using these sources as a reference.



Economic Benefits

Urban sprawl has created an increase urbanization to now include previously commercial and industrial areas. These new areas many times have undergone a shift in the marketplace from industrial spaces to a growing need for residential, retail, office space, or logistics facilities. This shift presents economic opportunities to revitalize and repurpose these sites for a more productive use.

Although brownfields sites have issues of concern, they also have several factors going for them:

- They can have existing infrastructure, such as roads, sewers, and electricity
- Many sites are located in urban core areas and close to existing neighborhoods and transit hubs
- Many of the structures are historic buildings with “good bones” that help to preserve a neighborhood’s culture.

These factors make brownfields properties attractive for redevelopment and can help to offset clean-up costs.



Benefits of the Unknown

In real estate as with most business practices there is an aversion to uncertainty and the unknown. Nonetheless, there are countless examples of financial and business successes by those that have decided to explore and embrace uncertainty.

In the case of brownfield properties, the risk of the unknown can be mitigated and well managed. A collaborative and diverse team of professionals will significantly improve upon a successful outcome.

The current governmental incentives and funding options can be used to greatly enhance other economic benefits of brownfield redevelopment projects for the property owner and developers.

The following are benefits to all stakeholders:

Brownfield Redevelopment Improves the Environment

The mere act of assessing, remediating, and redeveloping a contaminated site will help to turn the most environmentally harmful properties towards reuse. From a sustainability viewpoint land is finite and the environmental benefits to brownfield remediation are simple while producing a myriad of secondary benefits.

Productive land use goes hand in hand with economic benefits: A healthier environment contributes to higher productivity, delivering the economic benefits that will come.

Redeveloping Contaminated Sites Increases Property Values

Brownfield redevelopment has the potential to significantly increase property values. Take an abandoned, blighted site and through a redevelop project it is now converted into something useful, and the value of that property is certain to increase dramatically.

The economic potential of a brownfield site has always been a motivator for redevelopment. In the past the concerns over uncertainty and the unknown combined with the cost of assessment, cleanup, and remediation has kept the economic promise of brownfield sites a gray area and many times has stalled forward progress.

Currently new government incentives can ease the cost burdens. These incentives combined with the availability of newer, more cost-effective technologies can help to reduce cost and mitigate many uncertainties.

The profits from brownfield redevelopment have the potential to be magnified due to where we find many of these sites. Brownfields tend to be located in the urban cores across the country with another large percentage in suburban areas close to cities. These areas and most other brownfield sites have existing road and utility infrastructure. Developable greenfield properties within urban footprints tend to be scarce. A brownfield site that is redeveloped and repurposed in an urban core can account for an even greater property value and increased property lease rates for developers.

A Redeveloped Brownfield can Increase the Tax Base

The natural outcome of an increase in property values, as outlined above, means higher tax revenues derived from higher assessments to the redeveloped sites. A unified local or regional master plan that includes brownfield revitalization is a Prime the Pump approach to an increased tax base. With good planning and redevelopment strategies this approach can draw outside economic growth factors.

Brownfields Redeveloping Can Create Jobs

The EPA estimates that in its 2016 fiscal year, 8.9 jobs were created for every \$100,000 the agency loaned out to assist in the assessment, remediation, and redevelopment of brownfield sites. These jobs also require a higher skill level than many traditional construction jobs.

The job growth benefits to brownfield redevelopment do not stop at the labor force required to restore a site to a useful purpose. When a durable, sustainable construction project replaces an abandoned or under-performing brownfield site, these projects create a path to provide jobs at the new site for many more years to come.

Crime Reduction

Underutilized, abandoned, or blighted sites are associated with higher crime areas. Whether these associations are correct or not it is hard to ignore the blighted images and negative beliefs.



Brownfields an Overview

This section will look at the basics of a brownfield property.

Types of Brownfield Properties

Vacant – Structure or land that is currently unoccupied

Derelict – Properties that have been abandoned

Contaminated – Structure or land that has known or suspected contamination

Partially occupied or utilized – Structure or land that is underutilized and only partially occupied

It is important to note that properties that are over forty years old and / or those that are functionally obsolete should be considered to have suspected environmental issues.

Brownfield Concerns and Issues

Threats to human health - Most brownfields have physical health hazards, such as uncovered holes, unsafe structures, and sharp objects. Past industrial activities can leave behind chemical contamination or drums of chemical wastes.

Damage to flora and fauna - Typical contaminants found on contaminated brownfield land include hydrocarbon spillages, solvents, pesticides, and heavy metals, These contaminants can impair the flora and fauna take up of nutrient or directly damage the plant material.

Contamination of ground water - The typical pollution of groundwater around a brownfield is generally characterized by high contents of petroleum substances, chlorinated hydrocarbons, phenols, PCBs, and heavy metals.

Migration of contaminants to adjacent land - It is relatively common to discover that substances used at an older commercial or industrial property have migrated into the soil, surface water and groundwater and have traveled onto a neighboring property.

Typical Stakeholders

This is a partial list of stakeholders associated with a brownfield:

Municipalities - the town, city, state, federal, or tribal entity in which the brownfield is located has an interest in a brownfield action. They are responsible to ensure that environmental and public health is maintained. In addition, various governmental departments have some input into the redevelopment of the property.

Property Owner - not surprisingly, this is the person or entity that owns the property. They may wish to sell it to another person or entity, or they may want to redevelop it themselves. The owner may be a person, company, or organization, or the municipal, federal, or tribal government.

Funding and Investors / Financial Groups - an individual, group or financial institution that makes funds available for brownfield redevelopment with the expectation of generating interest, fees, or some form of profit ensuing from the development.

Developer - a person or entity that purchases, leases or is in partnership for the purpose to remediate and redevelop the brownfield site and to profit from their actions.

Environmental Professionals - the remediation is conducted by a professional engineering firm with expertise in this area. This contractor may also oversee the activities of subcontractors involved in any remediation.

Community and Other Local Area Stakeholders

Adjoining and local community property / business owners or residents have an interest in the end use and potential risks and concerns associated with the remediation and redevelopment process. The community at large, will have the opportunity to present their concerns and learn about the proposed remediation and reuse of the brownfield through a public consultation or a zoning hearing.

It is important to note that the redevelopment team needs to be proactive with their community engagement practices.



Brownfield Clean-up Process

This section is a brief overview of the process

Plan for success

Productive brownfield redevelopment projects take time, thought, and planning. A well-designed, strategized, and effective project takes a collaborative, diverse and experienced team. This team will help to acquire buy-in from all stakeholders. It is this engagement and buy-in that is critical to avoiding future concerns.

Planning

Planning Brownfield redevelopment is essentially the marriage of environmental cleanup and economic development.

There are two key upfront considerations:

- (1) what are the resources available for environmental investigation and cleanup of the property and
- (2) how will the property be redeveloped and/or marketed for redevelopment.

Thoughtful pre-planning of these two upfront consideration early on will help to focus future planning efforts and can make a big difference in successfully meeting your community engagement goals.

It is important to note that this is the stage that helps to remove many uncertainties and unknowns from future efforts. It cannot be stressed strongly enough the importance of planning and how it can avoid many future issues through mitigation or redirection of efforts.

Assessment

Any party, developer or community interested in undertaking a site assessment at a property should hire a Licensed Environmental Professional in accordance with state and local regulations

Cleanup

The results of a site assessment facilitated by a Licensed Environmental Professional will determine if cleanup is necessary and the type of clean up required. Cleanup standards are based on a number of factors. These factors include location, type, and amount of contaminant(s) present, how widespread and deep the contamination is, and the intended future use of the property.

Redevelopment

After assessment is complete and remedial actions have taken place or plans are developed for resolving unacceptable environmental risks, the property is ready for redevelopment.

The four redevelopment categories are:

Vertical Development - is development that is focused on commercial, residential housing, mixed-use, industrial, municipal buildings, etc.

Horizontal Development - is transit-oriented development (TOD) that focuses land uses around a transit station or within a transit corridor.

Sustainable Development - introduces wind, solar and renewable energy sources on redeveloped Brownfield sites.

Healthfields - are urban farms, community gardens, green/open space, parks, and playgrounds that are derived from Brownfield sites.



Strategies

America is made up of many different geographic and local marketplaces. Each deserving local strategies for successful redevelopment. There is a logical approach to these strategies:

Understand the Market

Obvious or not your professional team should include a real estate professional with local market experience capable of performing a real estate market analysis to confirm the end use with the highest chance for success. This analysis will help to support a big picture usage (residential, industrial, commercial) or refine your assessment to figure out the details of the project. Community and economic development organizations or private developers can all benefit from a market analysis.

Focus on Environmental Issues

Not all environmental issues may be able to be addressed up front. It is important to discuss and understand all of the environmental concerns that are impacting the site

openly and transparently. By conducting site assessments and an investigation, you'll be able to better position the site for reuse. A well-developed remediation plan, along with estimated costs, and allowable uses can then be used by a future owner, developer, or investor. Uncertainty is scary for investors, so the more you can do to reduce the unknowns about a property, the more attractive the project will become.

It is important to note that due to the nature of the sites contamination profile it may have limited end use possibilities. This will be determined by the environmental professionals in accordance with state and local regulations.

Financial Feasibility Analysis

Once a potential end use list is determined review the local or regional economic development master plan for end use redevelopment options. Once a shortlist of options is determined combine all available data with any environmental remediation costs to complete a financial feasibility analysis. This initial feasibility analysis can help to further narrow the shortlist, improve continued planning outcomes, and reduce uncertainty.

Practice Patience

After accepting the environmental analysis, determining the right reuse, and issuing an RFP for the project it is important to practice patience. Do not mistake urgency of purpose for haste in action. It is important to recognize that none of it will be easy or happen overnight and forcing a project that isn't right just for a quick win may ultimate fail or won't do as well in the long run.



Infrastructure Investment and Jobs Act

Additional funding available, FY22-26

Congress has made more than \$1.5 billion available over 5 years to support communities in their efforts to assess, clean up and safely reuse brownfields.

- \$1.2 Billion to support brownfields projects via grants and technical assistance
- \$300 Million to State and Tribal Response Programs

EPA is using these funds to provide a range of resources to help communities address the environmental, economic, and social challenges caused by brownfields.



Synergies

The synergy of environmental, economic, and community benefits aligns with the triple-bottom line approach to sustainable development that evaluates projects on economic, environmental, and social impacts. The added emphasis on community development in brownfield projects often involves building partnerships with state and federal government agencies, nongovernmental organizations (e.g., land trusts), community groups, educational institutions, and concerned citizens. These collaborations facilitate the development of public open space; historic and cultural preservation; learning opportunities; and an economic and land-use paradigm based on the intrinsic values of a community.

While expanding on the triple bottom approach one must look at a brownfield remediation as only one component of the total project. Once complete it allows for the combination of synergistic project components to be stacked together. This approach can allow for the full potential of capital and funding stacking from public and private sources. While enhancing stakeholder and sustainability outcomes.

Funding is always a critical issue for a redevelopment project. By combining synergistic project components into a brownfield redevelopment undertaking can open up the project to additional public and private funds. The federal government has set aside billions of dollars for various public good project uses.

The Inflation Reduction Act (IRA) provides billions of dollars in incentives, grants, and loans to support new infrastructure investments in the areas of clean energy, transportation, and the environment.

The Infrastructure Investment and Jobs Act will be making significant investments in the health, equity, and resilience of American communities. With unprecedented funding to support our national infrastructure. The EPA along with other federal agencies will channel funds to improve people's health and safety, help create good-paying jobs, and increase climate resilience throughout the country.

The EPA's - The Climate Pollution Reduction Grants (CPRG) program will provide grants to states, local governments, tribes, and territories to develop and implement plans for reducing greenhouse gas emissions and other harmful air pollution.

The funding provided under American Rescue Plan Act (ARPA) provides a unique opportunity for state and local governments to make strategic investments in long-lived assets, rebuild reserves to enhance financial stability, and cover temporary operating shortfalls until economic conditions and operations normalize.

Each of the above government funding programs have project requirements that with a little forethought and planning have the potential to be incorporated into a brownfield revitalization project. These additional funding sources can help to reduce upfront costs and improve financial outcomes.



Conclusion

Land is a finite commodity. Economically viable land, that is connected to infrastructure, located in an area that can support local economic development goals in a financially sound, environmental, and sustainable manner is a high valued property.

It is understood that the remediation and redevelopment of contaminated land can be costly. Given all factors a brownfield redevelopment project has the best chance and is more likely to meet a community's long term economic and sustainability needs. The repurposing and reusing of land, is not optional for many communities. Given current density and land usage it is the primary way forward.

Future generations and our economy, nationally and locally, depends on our current strategic and healthy land use. Brownfield redevelopment and the redevelopment of existing, previously used properties is the unexploited solution for future economic and financial growth for many geographic areas in the US.

Federal, state, and local governments' have recognized this reality and are easing regulatory barriers and are funding third party organizations to assist with the regulatory processes.

It is not a stretch to say that we currently are entering a renaissance period favorable to brownfield and economic redevelopment projects.

Contact Information

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