CENTER FOR CREATIVE LAND RECYCLING

RECLAIM. CONNECT. TRANSFORM.

Community Transformation through Brownfields Redevelopment

A White Paper by the Center for Creative Land Recycling

Reclaim. Connect. Transform.

Those words define our work at the Center for Creative Land Recycling (CCLR).

Vacant or contaminated land may not feel or look like a community asset waiting to happen, but with the right knowledge, skills, vision and investment, these properties offer local governments and neighborhoods some of the best opportunities to transform their economies and their futures. The purpose of this white paper is to explain why brownfields redevelopment matters for communities across the U.S., and to provide a brief introduction to the brownfields redevelopment process. This paper is intended for elected officials, local and state governments, civic leaders, non-profits, neighborhood associations, and other stakeholders with an interest in learning more about brownfields revitalization and what is necessary to make it successful.

This white paper does *not* go into detail about environmental assessment, remediation, liability relief, and other topics central to the "how" of brownfields redevelopment. Instead, this paper focuses on the "why." For more about the nuts and bolts of brownfields redevelopment, visit CCLR's website at www.cclr.org and check out our publications page and Land Recycling 101 tutorial.

About CCLR

CCLR convenes, consults and collaborates with communities, government agencies, and the private sector to encourage the reuse of contaminated or underutilized land and ensure that redevelopment projects proceed in ways that reduce inequities and increase community wellbeing. Over the next 20 years, we will repurpose thousands of underutilized properties across America in an intentional manner that reduces inequalities, increases environmental, physical and economic wellbeing and mitigates climate change by reducing contaminants in our environment.
This approach to land recycling will create:

- Housing, parks, and space for new businesses
- Hundreds of thousands of new jobs
- Billions in new tax revenue

If successful, we will achieve the following impacts:
More communities will undertake and complete land recycling projects and will assist others who undertake similar projects.

- More governments will understand the importance of repurposing underutilized properties and will support redevelopment projects.
- More businesses will partner with communities by being active participants in repurposing underutilized properties.

Defining Brownfields and Land Recycling

Land recycling is the reuse and redevelopment of any property deemed abandoned, vacant or underused. Brownfields redevelopment is a subset of land recycling and involves the reuse and redevelopment of contaminated land. The U.S. EPA defines a brownfield 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."

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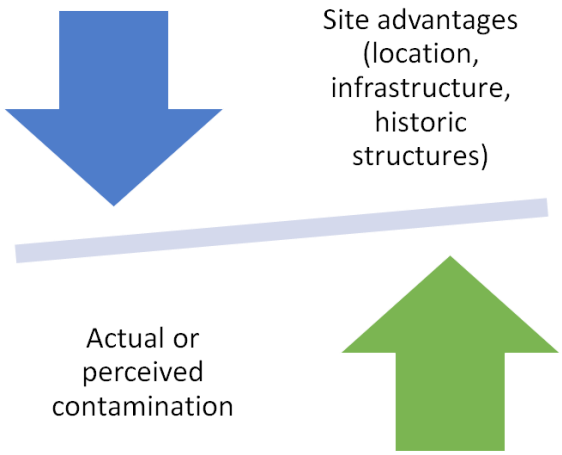
contaminant."[1] The words "potential presence" are important: many brownfields are not contaminated, but suspicion of contamination stifles a site's redevelopment potential. Brownfields are therefore sites that are sufficiently complex or risky for their redevelopment to require a concerted effort on the part of the local government, private sector and community – usually including public funding, a solid vision and plan, and strong public support.

While redeveloping brownfields can transform local economies and improve quality of life for local residents, left to idle, brownfields pollute soil, water and air and threaten public health and economic vitality. At best they contribute little or nothing to local coffers, and at worst their maintenance drains local tax dollars that could be used to support social services and other community needs.

While problematic and complex, brownfields sites have several factors going for them:

- Brownfields are often connected to existing infrastructure, such as roads, sewers and electricity;[1]
- Brownfields are frequently closer to existing neighborhoods and transit than undeveloped sites;
- Brownfield reuse helps avoid sprawl by using existing land more strategically;[2]
- Brownfields may have historic buildings with "good bones" that can be preserved, helping maintain a neighborhood's local fabric.

These factors make brownfields properties attractive for redevelopment, while actual or perceived contamination makes them less attractive. When contamination drags down a property's value and overwhelms any advantages conveyed by location, connectivity or existing structures, a property is said to be "upside down." A coordinated public, private and community vision and response, underscored by strong partnerships, can flip this equation and make redevelopment feasible.



Contamination affects a property's value.

Estimated Impact of Brownfields

Our communities have seen their share of economic shifts, from agriculture to manufacturing and now to a service economy driven by knowledge and information. In the process of economic transition, many communities have suffered from economic disinvestment as factories closed and industries relocated, leaving behind environmental contamination. Any future economic growth has to account for this contamination and make previously developed land safe for reuse. In short, a sustainable and successful economic growth strategy must address the need for brownfields redevelopment.

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There is no widely accepted estimate for the number of brownfields in the United States. Based on its contaminated sites databases, EPA estimates that there are 450,000 brownfields in the country, but recent estimates have also been as high as 2 million. These numbers exclude properties that do not appear on federal or state registries, and therefore underestimate the true extent of blighted sites. Encompassing old gas stations and dry cleaners, former rail yards and rail ways, abandoned mines and industrial sites, auto repair facilities,

1 U.S. EPA, "Overview of the Brownfields Program," https://www.epa.gov/brownfields/overview-brownfields-program, accessed June 2017.

2 Evans Paull, Northeast-Midwest Institute, 'The Environmental and Economic Impacts of Brownfields Redevelopment, a Working Draft," July, 2008.

3 U.S. EPA, "Air and Water Quality Impacts of Brownfields Redevelopment," October 2011.

landfills and vacant lots, brownfields are everywhere.

33% of the American population, including 35% of children under age five, live within three miles of a brownfield that received EPA assessment or cleanup funds.

According to EPA's conservative estimates given in testimony before Congress in 2016, 33% of the American population, including 35% of children under age five, live within three miles of a brownfield that received EPA assessment or cleanup funds. From the inception of the EPA Brownfields Program in the mid-1990s to 2016, only about 25,000 sites have received EPA funding, so the extent to which brownfields impact the American population is almost surely greater[4]. Brownfields are not a special interest issue: they are an issue everywhere.

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Brownfields Redevelopment: A Powerful Investment in Our Shared Future

Under the best of conditions, real estate is a risky business. Brownfields' more central location and cost of cleanup tend to make this land more expensive than previously undeveloped land, also known as greenfields (i.e. agricultural land or open space). Site investigation, planning for and conducting cleanup adds a layer of risk and uncertainty, as the process requires working with state and sometimes local or federal regulatory agencies, which takes time and can increase costs. Environmental liability is another concern common to brownfields redevelopment – this encompasses questions of who is ultimately responsible for the cost of cleanup, for ensuring the cleanup is done correctly, and that any maintenance occurs as scheduled, sometimes into perpetuity. Brownfields redevelopment also requires extensive community involvement throughout the process, ensuring that those who live, work, play and worship within the affected area are informed and have multiple opportunities to provide input and participate in the redevelopment process, from informing plans to gaining information about regulatory requirements, to training for jobs in remediation.

All these considerations show why it is frequently easier and cheaper to build on a greenfield. Greenfields lack underground storage tanks that need to be removed, and they have no mysterious spills to be investigated and addressed. Often, they may have no or very few neighbors who need to be consulted. They do, however, come with their own major costs, many of them borne by the community as a whole. For example, because greenfields are often unconnected to existing infrastructure and are farther from existing neighborhoods, they require roads for access and generate traffic and greenhouse gas emissions.
As a society, our land use challenge for the 21st century is to level the playing field between greenfields and brownfields. Brownfields redevelopment isn't just a good thing to do – it is the thing to do. Building cities for the future requires that we continue to prioritize land reuse. Consider that:

- Compared to sprawl, brownfields redevelopment projects lower vehicles miles traveled and greenhouse gas emissions by 32 to 57 percent.[5]
- Brownfields cleanup can increase property values in surrounding areas by up to 5 to 15.2% for properties that are up to ¾ miles from a remediated site.[6]
- EPA estimates that every one acre of redeveloped brownfield saves 4.5 acres of habitat, forest, or agricultural land.[7]
- Relative to greenfield development, brownfield redevelopment produces an estimated 47 to 62% reduction in stormwater runoff.[8]

The U.S. EPA's brownfields program and the grants it provides have leveraged $16.11 in funding from

4 Juliet Eilperin and Brady Dennis, "White House eyes plan to cut EPA staff by one-fifth, eliminating key programs," March 1, 2017. https://www.washingtonpost.com/news/energy-environment/wp/2017/03/01/white-house-proposes-cutting-epa-staff-by-one-fifth-eliminating-key-programs/?utm_term=.a71734a12cb6.

5 U.S. EPA, "Air and Water Quality Impacts of Brownfields Redevelopment," October 2011.

6 Evans Paull, Northeast-Midwest Institute, 'The Environmental and Economic Impacts of Brownfields Redevelopment, a Working Draft," July, 2008.; U.S. EPA, "Brownfields Program Accomplishments and Benefits," https://www.epa.gov/brownfields/brownfields-program-accomplishments-and-benefits, accessed July 2017.

7 Ibid.

8 U.S. EPA, op cit.

other sources for every $1 of EPA funding.[9] Across eight diverse studies, public investments in brownfield redevelopment are estimated to leverage $8 in investment for every $1 of public investment.[10] Brownfields redevelopment has historically been a bipartisan issue, because there is something in it for everyone:

- Jobs, economic development, retail space for new entrepreneurs and increased local tax revenues
- Reduced infrastructure costs and more strategic investments in infrastructure upgrades and reuse
- Protecting public and environmental health
  - Protecting the quality of soil and water through direct cleanup and redevelopment
  - Protecting air quality by providing an alternative to sprawl development, which requires more driving to get anywhere
- Enhancing natural environments by creating and improving habitat

All this goes to show that there is also a profound opportunity cost associated with developing a greenfield. Brownfields redevelopment not only removes a negative (contamination and blight) but can also generate a cascade of positive changes that greenfield development cannot.

How have other communities redeveloped brownfields?

Successful brownfields redevelopment requires several key ingredients:

- A vision with community support
- Strong and ongoing community engagement
- A local champion to drive the process
- Strong partnerships
- Creative funding, including public and private sources

Partnerships are particularly critical for successful redevelopment and community engagement. Examples of key partnerships in a brownfields redevelopment project include:

- Local government
- Private groups such as the Chamber of Commerce or Regional Economic Development Organization
- Neighborhood associations
- Faith communities
- Non-profits
- State agencies
- Environmental engineers and consultants
- Lenders
- Private developers

While often a welcome development, brownfields cleanup can raise strong reactions among neighbors and other local stakeholders. How will the remediation process affect the local community, and how can dust and noise be managed safely throughout the process? How clean are the cleanup levels required by state and federal regulators? Can remediation really ever make a property safe again, and how safe will that property be in the long term? Many stakeholders, from cities and their elected leaders to developers and state regulators, play a critical role in helping address these concerns. They can, for example,

- Educate neighbors about the regulatory requirements that guide the remediation and redevelopment process;
- Help illustrate how and why different cleanup standards apply, and what that means for the long term safety of future occupants or residents; and
- Commit to working with the local community to describe and explain in detail what remediation methods will be used and why.

The Center for Creative Land Recycling (CCLR) can also assist. As one of three EPA-funded Technical Assistance to Brownfields Communities providers across the country, CCLR is an independent, non-profit educator and navigator with over two decades of experience working on all aspects of brownfields redevelopment projects. CCLR has special expertise around community engagement, and its services are available at low or no cost to local governments, non-profits and community groups.

Brownfields properties have been redeveloped safely for over 20 years. While challenging, redevelopment can yield major benefits, such as economic development and job creation. Questions about remediation are another example of why public engagement is so critical at every step of the redevelopment process.

9 Evans Paull and U.S. EPA, op cit.
10 Evans Paull, op cit.

On funding, risk and the centrality of partnership

For all communities, redevelopment takes partnership. The exact shape of that partnership depends on the strength of the local real estate market and the incentives necessary to get the project done. State and federal funds are particularly a critical source of risk capital, especially in communities with weaker real estate markets where reinvestment could be particularly transformational, but won't happen without incentives and help. Many brownfields sites are sufficiently risky that public money has to be first in, helping lower the barriers to private investment by reducing risk. Otherwise, communities' ultimate goal of engaging a private investor to join the project will be delayed or never happen.

A developer's ability to recoup cleanup costs through later profits derived from the redevelopment of the site is a critical factor in determining whether cleanup and redevelopment can take place with private support.

Local governments can pursue grant funding to perform environmental assessments, which reduces risk to developers because assessment funds are risk capital. In other cases, local governments might help support cleanups. Streamlining administrative requirements, co-applying for grants, and playing a leadership role in educating the community are all critically important actions that a local government can take to help a project succeed.

Most brownfields redevelopment projects require private investment. Housing, office or other commercial space, for example, tends to be sufficiently expensive and complex that private investment is necessary to carry a project through to completion. Private developers are therefore critical project partners, and must work with the community to balance local input with local government requirements and economic demands. Especially when a property is abandoned and no person or group (called a "responsible party") exists and can be held responsible for cleanup costs, a private developer will often work with the local government and other actors to locate and manage the funding necessary to accomplish a cleanup. A developer's ability to recoup cleanup costs through later profits derived from the redevelopment of the site is a critical factor in determining whether cleanup and redevelopment can take place with private support. A developer is a stakeholder in the redevelopment process, and a developer who is committed to engaging with the community to create a mutually beneficial redevelopment can be a valuable partner.

Experiences of Brownfields Redevelopment and Stories of Transformation

Transit Center, Emeryville, California

Emeryville, California exemplifies how brownfields redevelopment can transform a community. Once a center of industrial activity and employment, following the off-shore relocation of factories this 1.2 square mile city became a forgotten corner of the San Francisco Bay Area, abandoned by industry and suspected of harboring contamination in the soil and groundwater. It was dubbed the "armpit of the Bay Area." There were little in public funds or private investment to elevate the community from its economic malaise. Using resources from the U.S. EPA's Brownfields Program and local government incentives, the City conducted an area-wide physical evaluation, establishing that environmental quality was not what it seemed and correcting the misconception that its entire land area was affected by toxins. The City brought private investment and public improvements that since the mid 1990's have resulted in the creation of 5,000 jobs, 4,000 housing units, parks, infrastructure im-

provements, and commercial and retail space.

Emeryville received assistance from CCLR on legal and financing issues. Its redevelopment projects pioneered new sustainable techniques for stormwater management in dense urban environments, and it also created an online environmental database for its dilapidated properties, which is today the basis for state brownfields registries.
A significant example of brownfield stakeholder collaboration and economics can be observed in the nearly complete Emeryville Transit Center. The Transit Center is the last parcel of six acres of land historically occupied by a transformer service and rehabilitation factory. After being damaged beyond repair in the 1989 Loma Prieta earthquake, the factory sat vacant and abandoned due to the many decades of polychlorinated biphenyls (PCBs) and other transformer business-related contaminants in site soil and groundwater. Building on its experience dealing with post-industrial contamination, the Emeryville Redevelopment Agency aggregated U.S. EPA and State of California grant funding and partnered with a local developer to creatively address environmental quality and property development needs.

Under the oversight of state regulators, contaminated soil from three-quarters of the property was removed and placed in an engineered cell beneath the parking lot, which served as a cap over the remainder of the parcel. This allowed the demonstrably safe redevelopment of most of the land as a mixed-use residential, office and commercial assemblage. This redevelopment and an improving economy, in conjunction with a final tranche of EPA grant funding, made the redevelopment of the last parcel (the capped parking lot) viable. In 2016 the cap and a portion of the waste material was removed and the remaining material re-entombed beneath the concrete foundation of what was to become an 8-story office building over a ground floor transit center for bus and rail.

"Serving the City of Emeryville's Brownfield program was a highlight of my career. So many examples, so many lessons learned - any city confronted with the challenge of post-industrial blight would benefit from studying the Emeryville story."

Markus Niebanck, Principal at Amicus Environmental

Cornfield Park, Los Angeles, California

Collateral effects of the merger of the Southern Pacific Railway with Union Pacific in 1996 were certain system redundancies, among these surplus properties in marketplaces where each company had previously competed. One such property was a 32-acre railyard in Los Angeles, once the early terminus of the Transcontinental Railway. Referred to as the Cornfield Yard in association with one of its uses before the construction of railroad infrastructure, in the late 1990s the storied history of the yard was forgotten and the land fenced and abandoned.

The property was subsequently purchased by a local developer for the construction of warehouses and logistics businesses, as the post-railroad environmental condition of the property was better suited for such a use than for something more people-intensive, such as housing or recreational space. However, residents in adjoining Chinatown believed the land could be put to a more beneficial purpose and together organized against the proposed development.

Due to the fact that the land was perceived to be of compromised environmental quality, a substantial obstacle stood between what the land was suited for and the desire of the community. As a consequence the land lay fallow, fenced, and in limbo.

Enter The Trust for Public Land (TPL). With the support of the Governor and the California Department of Parks and Recreation, TPL arranged for the conveyance of the land from the developer to the State for the creation of California's first urban state park. Capi-

talizing upon their familiarity with environmentally compromised property, TPL leveraged the conveyance to monetize the remediation of the railyard prior to its transfer to the DPR.

The Cornfield is now open for business as a regional attraction and a neighborhood amenity. Its success owes to the willingness of project principals to take on a complicated brownfield – a willingness that comes with expertise and familiarity that is in places and for a variety of reasons not always in abundant supply.

Community Gardens, Fresno, California

In Fresno, CCLR worked with a community coalition beginning in 2010 to organize and facilitate outreach workshops to address the health impacts of brownfields and identify reuse options for targeted sites. The coalition prioritized the creation of a network of community gardens to both reduce environmental health hazards and improve access to healthy food in low income neighborhoods. CCLR developed an Action Plan to better align Fresno's land use policies with these public health goals. With CCLR's assistance, in 2015 the coalition was able to convince the City to change local land use policies to facilitate more gardens and farmer's markets. CCLR also assisted the City in its application for federal resources to help assess specific sites, identified state resources for site development, peer reviewed multiple grant proposals, and worked with the Fresno Housing Authority to identify potential locations for community gardens in their developments. In 2017, CCLR began working with the City of Fresno once again on the implementation of its new EPA Brownfields Area Wide Planning Grant, which focuses on improving economic development, quality of life and public health within the City's southwestern quadrant.

Former Vacuum Oil Site, Rochester, NY

The 40-acre Vacuum Oil Site, located on the Genesee River in Rochester, NY operated as an oil refinery from the mid 1860's to the 1900s, and continued to store bulk petroleum until operations on the site closed in 1934. The site was then used as an auto junkyard, which left it contaminated with petroleum, heavy metals, and volatile organic compounds (VOCs).

Sitting immediately across the Genesee River from the University of Rochester, the City's largest employer, and connected to the University by a pedestrian bridge, the Vacuum Oil Site was a clear candidate for redevelopment. In March 2015, CCLR and the U.S. EPA convened a workshop to help the City of Rochester advance its cleanup and redevelopment goals for the Site. Local, state and federal agencies and key stakeholders gathered to learn about the Site and its challenges, and discuss solutions to the key issues affecting the cleanup and redevelopment process. The City and local utility, as well as 10 state, federal and local agencies, all participated in the workshop, and the focused interagency dialogue that ensued helped the City overcome critical barriers to moving the redevelopment process forward.

80% of the Vacuum Oil Site is currently undergoing remediation with help from three separate projects from the NY State Brownfield Cleanup Program, and private interest in redevelopment is growing. The City has also established a funding plan for site cleanup and the construction of improvements to public riverfront access and safety, trails, and open space areas. With help from state grants, the City envisions redeveloping the former Vacuum Oil Site for a combination of signifi-

cant public access and open space, as well as residential and commercial development.

"Advancing the cleanup and redevelopment of large brownfield sites with several different property owners can be particularly challenging. Creating a common vision and completing initial environmental investigations are key initial steps needed to stimulate community interest and promote investment. Continuing the process requires coordination among local, state and federal agencies and the active involvement of property owners and the neighboring community in order to tackle the interrelated challenges that must be addressed to achieve cleanup and sustainable redevelopment. CCLR was able to help Rochester pull this critical coordination effort together."

Mark Gregor, retired Manager of Environmental Quality, City of Rochester, and Municipal Environmental Program Advisor, LaBella Associates

"The years and efforts necessary to weave a brownfield into the economic and community fabric are well worth the results. Every time. For every site."

Ignacio Dayrit, CCLR Program Director, former Project Manager, Emeryville Redevelopment Agency

Menomonee Valley, Milwaukee, Wisconsin

The Menomonee Valley in Milwaukee, Wisconsin had a long history of agriculture and industry – once called the "machine shop of the world, and the Valley as its engine." With deindustrialization, the Valley became Wisconsin's most visible eyesore. Since the late 1990's the Valley has been transforming into a national model of economic development and environmental sustainability. Three hundred acres of brownfields have been redeveloped, 44 companies have moved to the Valley, and more than 5,000 family-supporting jobs have been created. One million square feet of green buildings have been constructed and more than 60 acres of new trails and park space with 45 acres of native plants have led to improved wildlife habitat and water quality.

"A City like Milwaukee cannot annex additional land and has to find creative ways to reuse 97 square miles that make up our community. Due to the historical industrial nature of our City's economy, it continues to be imperative that the public and private sectors recognize the importance of brownfield redevelopment. In order for a community like Milwaukee to truly grow and attain real economic development and environmental sustainability, brownfield redevelopment must be part of the answer."

Dave Misky, Assistant Executive Director-Secretary of the Redevelopment Authority of the City of Milwaukee

Urban and rural examples from Alaska

Most remote Alaskan villages meet their energy needs using diesel. Due to age and harsh weather conditions, above-ground diesel tanks deteriorate over time and become a source of contamination from spills, as well as an air quality issue due to generator emissions. EPA petroleum rules and the Alaska Native Claims Settlement Act of 1971 further complicate Alaskan villages' eligibility for federal funding to address these issues. As part of its brownfields redevelopment work with the Alaska Native Tribal Health Consortium, CCLR is contributing to efforts to increase renewable energy access for Alaskan Native communities. Part of the solution is a pilot project to test the feasibility of year-round renewable energy development, which CCLR is pursuing with different communities, tribal consortia, state and federal agencies. CCLR has prior experience connecting brownfields and renewable energy: in 2011, CCLR provided training and education to Sea Lion Corporation tribal members and, in coordination with the Yukon River Watershed Intertribal Council, assisted the Sea Lion Corporation in obtaining a U.S. Department of Agriculture and Department of Energy rural grant that resulted in the installation of windmills.

In Anchorage, CCLR has worked with the Cook Inlet Housing Authority and the Alaska Department of Environmental Conservation to remediate contamination from an old gas station and revitalize the Spenard neighborhood.

"Brownfields can be a significant contributor to neighborhood disinvestment, not just on the subject site but for surrounding properties as well. We have taken on brownfield redevelopments in Anchorage neighborhoods in an effort to catalyze change and deliver the type of redevelopment that the community wants and needs."

Tyler Robinson, Director of Development Planning and Finance, Cook Inlet Housing Authority

Lowell, Massachusetts

Lowell, Massachusetts' Brownfields Program has been working on sites in conjunction with several city planning efforts, and integrates with economic development efforts to foster business growth and vitality. It is credited with seeding many signature projects as the Paul Tsongas Arena, LeLacheur Park, the JAM Garage and the Hamilton Canal District. Among the program's highlights are:

- An inventory of 52 underutilized industrial properties with the greatest redevelopment potential
- Development of a $30 million sports arena and a $15 millionprofessional baseball stadium on a former mill site
- Attracted developers who have invested more than $10 million into the 400,000 square-foot Wannalancit Mills project, and $36 million into the 700,000 square-foot Boott Mills project, and
- Redeveloping the 15-acre Hamilton Canal District.

Waterfront Technology Center, Camden, NJ

What was an unsightly parking lot on a brownfield site is now the Waterfront Technology Center at Camden (WTCC), a sustainable building housing technology and business incubators. The New Jersey Economic Development Authority (NJEDA) financed the remediation and construction of this LEED (Leadership in Energy and Environmental Design) Gold certified building. The space, located at Federal Street and Delaware Avenue, is now home to multiple corporations as well as extensions of Rutgers and Drexel Universities and Cooper University Hospital – all working toward the advancement and integration of technology science.

A preliminary site assessment revealed that the site was contaminated with polynuclear aromatic hydrocarbons (PAHs), arsenic, lead, copper, and zinc. Remediation work included the removal of an underground storage tank and 267 tons of petroleum-contaminated soil, as well as a cap of concrete, stone, and clean topsoil to prevent exposure to or migration of any contaminants.

With an investment of over $10 million in remediation and construction, the Center was financed by the NJ Economic Development Authority, and in place of an abandoned brownfield site and
unsightly parking lot now stands a beautiful facility for technological development. This project has not only helped revitalize Camden's waterfront, but also serves as an example of environmental sustainability in a city devoted to innovation and advancement.

Conclusion: Brownfields are Transformations waiting to happen

The struggle for many communities is not necessarily running out of land – rather, it's running out of economically viable land, meaning land that is connected to infrastructure, well located,
and able to support local economic development goals in a way that is fiscally, environmentally, and socially sustainable. While cleaning and redeveloping contaminated land can be costly, brownfields are more likely to meet a community's long term economic and sustainability needs than greenfields.

Reusing previously utilized land, then, is not optional for most communities: it is the way forward. The future of our economy, nationally and locally, is built on a foundation of strategic and healthy land use, and to get there, we need to redevelop existing, previously used properties. The land that gave us the economies that supported our parents and grandparents, often with serious environmental consequences, can support us, our grandchildren, and future generations, and can do so in a healthy, sustainable way. Brownfields redevelopment is the untapped solution to accommodating our future by repurposing the resources of the past. Communities redevelop brownfields every day, and the technology, regulatory processes, and experience exist to make redevelopment a reality in many more communities.

For assistance with your brownfields redevelopment project, or for more information about land recycling, contact the Center for Creative Land Recycling. CCLR can provide information, help identify resources, assist with visioning and planning, and regularly provides free or very low cost workshops, webinars, and trainings. With offices in Oakland, CA, the New York Metro Area, and Washington, D.C., CCLR is ready and able to help your community.

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