

# Reusing Land Restoring Hope

*A Report to Stakeholders from the U.S. EPA Brownfields Program*





Jordan Valley Park is a community designed multi-use park in the heart of Springfield, Missouri. The 250 acre Jordan Valley Industrial Corridor was once prime industrial land, which had been underused and abandoned for years. Today, the area is bustling with activity. In 2002 Springfield celebrated the grand opening

of the Civic Park and an Ice-Skating Arena. A ballpark, and an exposition center is currently under construction, and a multi-use arena is in the design phase. Funded by public and private sources, the Springfield residents have taken a new interest in community revitalization since the grand opening occurred in 2002.



The Jordan Valley Park water feature is a popular attraction.

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**This report is dedicated to Bill Librizzi, of the New Jersey Institute of Technology, former director of Region 2's Waste Management Division, in memory and appreciation of his vision, leadership, and support to the brownfields effort.**

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Aerial view of the Jordan Valley Ice Park—a two-sheet ice-skating arena—and the western entrance to the Jordan Valley Civic Park.



The Springfield, Missouri, Assessment Pilot worked closely with the community to determine its need for recreational facilities.



Springfield, Missouri, residents enjoy an evening concert in the park to celebrate the Grand Opening.



# Overview

This report chronicles the milestones and accomplishments of the U.S. Environmental Protection Agency's (EPA) Brownfields Program, which began in 1995 as an ambitious initiative to change the way people think about contaminated properties. For decades, uncertainty about the presence of contamination, fear of potential cleanup liability, and finite cleanup resources, resulted in thousands of potentially contaminated properties blighting the American landscape. EPA's Brownfields Program has been working to address this national environmental issue.

The Brownfields Program has grown from its modest beginnings into an award-winning national movement that has revolutionized the way people perceive, address, and manage property. Over several years, EPA has provided technical and financial assistance for brownfields revitalization through an approach based on four main goals: protecting the environment, promoting partnerships, strengthening the marketplace, and sustaining reuse. This approach created a dynamic, flexible program that evolved in response to the needs of state, tribal, and local governments and other stakeholders. Since 1995, the investment in EPA's Brownfields Program—less than \$700 million—had leveraged \$5 billion in cleanup and redevelopment funding from the public and private sectors and created more than 24,000 jobs, often in economically disadvantaged areas that needed them most. Brownfields Pilots assessed more than 4,300 brownfields properties, approximately one third of which were found to have no significant contamination, or levels so low they required no cleanup prior to the property's reuse.





*The Jackson County, Michigan Assessment Pilot facilitated the restoration of the historic U.S. Post Office, which now serves as the entrance of the Consumers Energy headquarters building.*



The cornerstone of EPA's Brownfields Program was its investment in Brownfields Pilots. Three types of pilots provided "seed" money to jump-start state and local efforts to assess, clean up, and leverage redevelopment of brownfields. Brownfields Assessment Demonstration Pilots funded environmental assessment of brownfields as well as local inventories, planning, and community outreach regarding their cleanup and redevelopment. Brownfields Cleanup Revolving Loan Fund Pilots provided state, tribal, and local governments with capital to make low or no interest loans to finance brownfields cleanups. Brownfields Job Training and Development Demonstration Pilots benefitted communities affected by brownfields contamination by training local residents for jobs related to brownfields cleanups. These pilots helped ensure that the economic benefits derived from assessment and cleanup activities stayed in the communities that had suffered from the adverse effects of brownfields.

Activities undertaken as a result of the Brownfields Pilots provided a crucial step in achieving brownfields cleanup and redevelopment. Communities were able to reduce uncertainty about environmental contamination that had kept individual properties idle for years. In cities and towns across the country, brownfields were converted into new homes, health care facilities,



*An artist's rendering of the completed Tremont property in Boston, Massachusetts.*



new parks, museums, and cultural centers. The catalyst of Brownfields Program “seed” money helped return brownfields to productive uses, creating new jobs, generating additional tax revenue, and stimulating investment in community revitalization.

In 2002, Congress enacted the Small Business Liability Relief and Brownfields Revitalization Act, providing the Brownfields Program with a congressional mandate, increased funding, and meaningful opportunities to advance brownfields reuse nationwide. The law supports the existing approach of EPA’s Brownfields Program, offers additional opportunities for financial assistance to communities, strengthens liability protections for contiguous property owners and prospective purchasers of brownfields properties, and expands assistance to states and tribes for their brownfields response programs. Additionally, the new Brownfields Law included an expanded definition of brownfields: “Brownfields are defined as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substances, pollutants, or contaminants.” EPA moved forward immediately to implement the new Brownfields Law. In 2003, EPA announced more than \$73 million in grants: 117 Assessment Grants, 28 Revolving Loan Fund Grants, 10 Job Training Grants, and 69 Cleanup Grants.



**Accomplishments to date:**

- **554 Assessment Pilots/Grants—4,310 properties assessed**
- **171 Revolving Loan Fund Pilots/Grants—40 loans totaling \$17.2 million**
- **67 Job Training Pilots—1,740 people trained—two out of three employed**
- **69 Cleanup Grants**





Since 1995, EPA's investment—nearly \$700 million—in the Brownfields Program has leveraged \$5.09 billion in brownfields cleanup and redevelopment funding from the private and public sectors, and helped to create more than 24,920 new jobs for citizens in brownfields communities.

This report, the first in a series that will be updated as the Brownfields Program changes and grows, illustrates the collaborative and innovative spirit of people across the country who have transformed perceptions about brownfields cleanup and redevelopment. The report provides baseline information, organized into the following chapters:

- *Catalyzing Change* describes the brownfields dilemma and how EPA's program stimulated significant changes in the national mindset about brownfields redevelopment.
- *Revitalizing Communities* illustrates the impact of the Brownfields Program in improving the environment, enhancing the lives of thousands of citizens, and generating economic benefits. Each EPA Region portrays its unique approach to implementing the Brownfields Program in a special Regional section at the end of *Revitalizing Communities*.
- *Moving Forward* focuses on how EPA's Brownfields Program is forging ahead and breaking new ground under the new Brownfields Law, and considers what the future holds for this unique and dynamic program.



Construction activities on the Tremont property were facilitated by a cleanup loan from the Boston, Massachusetts, BCRLF Pilot.





# Catalyzing Change

Brownfields are defined 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.

—Small Business Liability Relief and  
Brownfields Revitalization Act, 42 USC 9601 (39)  
enacted January 2002



*A former printing and engraving facility was redeveloped into the Harley Davidson/Buell Motorcycles shop in Stamford, Connecticut.*

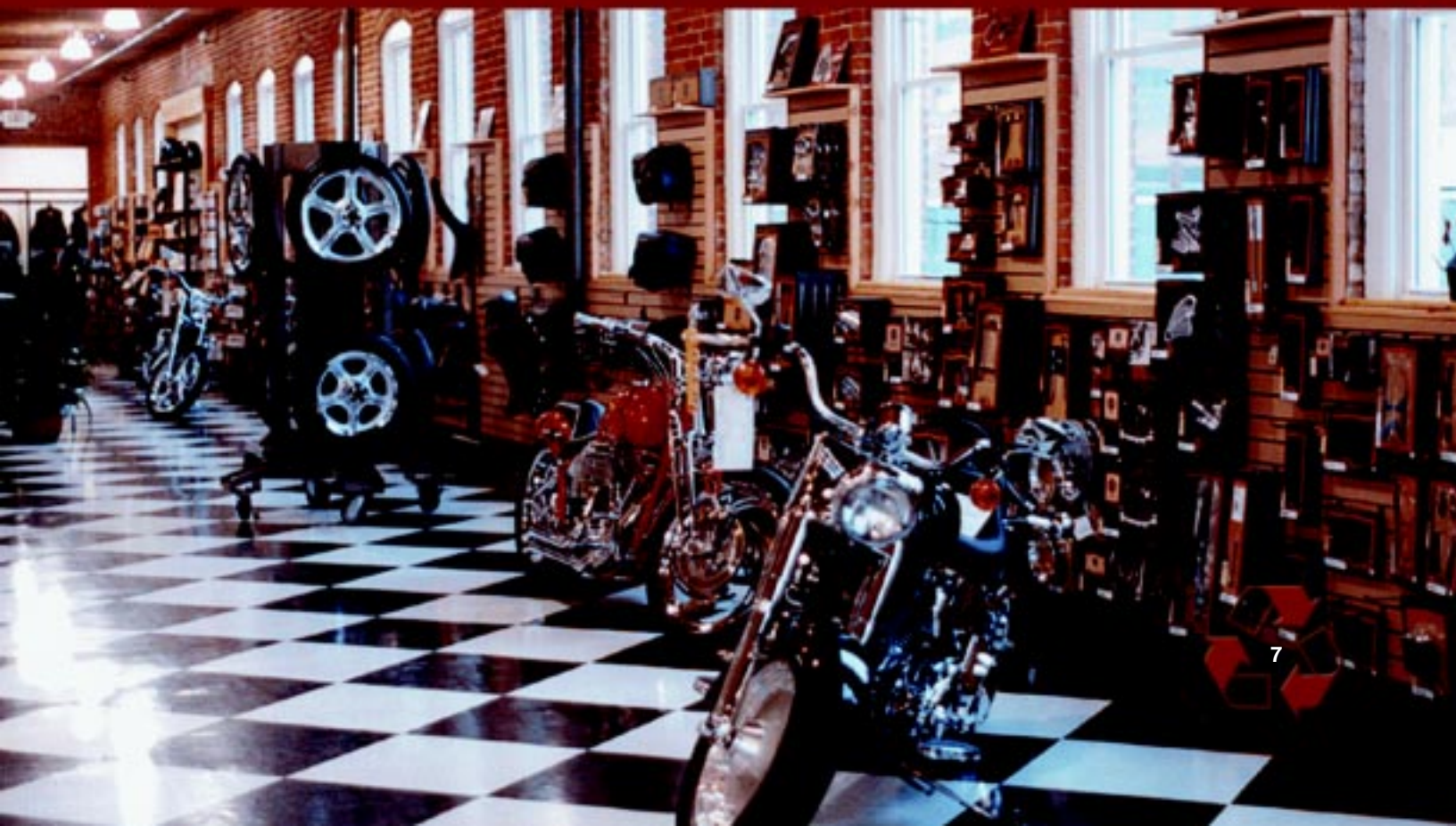


## ***Putting the Problem in Context***

Communities across the country have suffered for many years from the blight and negative economic impact of abandoned, underused, and potentially contaminated properties called brownfields. These brownfields are the remnants of industries that fueled the nation's economic engine during the past two centuries, but closed down or moved as economic conditions changed. In the smallest towns and the largest cities, empty warehouses, decrepit factories, and junk-filled lots are constant reminders of how quickly a source of community pride can become a dangerous, unsightly, and unwanted burden. Estimates of the number of brownfields across the country range from 450,000 to as many as a million.<sup>1,2,3</sup>

Brownfields are usually located in areas with access to transportation and utility infrastructure. Nevertheless, developers are often hesitant to redevelop brownfields because of the investment risk and potential liability for cleanup costs associated with owning contaminated or potentially contaminated property. Developers are more attracted to uncontaminated land in outlying areas with fewer financial risks. One of the primary results of this push to develop untouched land is what is called sprawl.

As developers interest shifted to outlying areas, cities and towns continued to grapple with the negative economic and environmental impacts of brownfields. The inability to draw investors and developers to brownfields redevelopment projects pushed property values and tax revenues down, and unemployment up. Many brownfields were located in poor, disadvantaged, and predominantly minority neighborhoods where the negative effects of job loss and poverty were felt more acutely. By the early 1990s, the U.S. Conference of Mayors pointed to brownfields as one of the most critical problems facing U.S. cities.<sup>4</sup>





*The 88-acre former Firestone Tire plant closed in 1983. It has been targeted by the Memphis, Tennessee Assessment Pilot for redevelopment into an affordable golf course.*

## ***Early Efforts***

State, tribal, and local governments have been dealing with environmental cleanup issues for many years. In 1980, enactment of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly known as Superfund, gave the federal government the authority to respond to and clean up abandoned or uncontrolled hazardous waste sites. CERCLA created a comprehensive liability plan that holds owners, operators, and other responsible parties jointly and severally liable for the cleanup.

In the years following the enactment of Superfund, states and tribes began to enact cleanup laws and regulations to address the thousands of abandoned and contaminated sites across the United States that the federal Superfund program would not have the resources to address. Many state cleanup programs followed the federal Superfund model, and enacted state cleanup programs with similar liability plans. For more than a decade, states and tribes, in partnership with EPA, worked to assess and clean up thousands of contaminated properties that threatened public health and the environment. Despite these extraordinary efforts, the sheer number of sites continued to challenge both federal and state cleanup resources. More needed to be done about the entire universe of sites, particularly the newly emerging realm of “brownfields.”

Recognizing these issues, a few states and some cities began to pioneer approaches to address the brownfields problem directly. The creation of innovative state programs, *e.g.*, voluntary cleanup programs, provided opportunities for state liability relief, recognizable cleanup standards and procedures, and other incentives to property owners, investors, and developers interested in cleaning up and redeveloping brownfields. Early efforts varied widely, with only a few voluntary cleanup programs in existence before 1995. Many early state initiatives needed time and dedicated resources to grow and mature, as the federal and state Superfund programs had done over the preceding decade.<sup>5</sup> Over time, it became apparent that a broader, national approach that linked federal, state, tribal, and local efforts while providing greater access to federal resources was needed to address the brownfields problem adequately.





## ***EPA's Brownfields Initiative***

EPA formally launched its Brownfields Initiative in 1995 and began a national effort to demonstrate that environmental cleanup and redevelopment of brownfields could bring life and economic vitality back to communities. The program would have to bring together a wide range of stakeholder interests, including many federal agencies that operate under different authorities. The program would have to change the perception that brownfields had no value and that investing in them was too risky. It would have to demonstrate that brownfields cleanup and redevelopment are economically viable and provide important environmental and quality-of-life benefits.

To meet these challenges, EPA designed the Brownfields Initiative to promote and support innovative, local approaches to brownfields issues. The program was designed to be flexible so that communities could tailor approaches to meet their unique local needs. The program fostered strong partnerships among local stakeholders and across all levels of government to help marry environmental, economic, and community interests. EPA also worked to clarify issues of liability in order to help knock down barriers to brownfields cleanup and redevelopment.



*The Hawaii Department of Business, Economic Development, and Tourism Assessment Pilot has targeted Lihue Sugar Lands. Plans for the property include a community center with commercial and residential development.*



*The Foster Paper Company property, abandoned since the 1980s, has been targeted by the Utica, New York, Assessment Pilot for redevelopment.*



*Sioux Falls, South Dakota Assessment Pilot targeted a scrap metal yard to become part of a larger park, composed of former brownfields.*

## Jump-Starting Local Programs

From the beginning, the centerpiece of EPA's Brownfields Program was its investment in locally-based Brownfields Pilots. These pilots offered communities nationwide the opportunity to use federal funds creatively to assess and clean up properties, and to manage risks associated with their redevelopment.

Brownfields Assessment Pilots helped communities lift the cloud of uncertainty about contamination that had kept individual properties idle for years. Environmental site assessments conducted through the pilots revealed the presence or absence of contamination. This information enabled pilot recipients to plan for needed cleanup at target brownfields. Properties that did not require cleanup were freed for redevelopment. In Ogden, Utah, Assessment Pilot funding helped transform a group of 17 brownfields, remnants of old railroad operations and factories, into a new office complex. The Pilot conducted Phase I and Phase II environmental assessments. Ogden City Redevelopment Agency then provided funding for the cleanup of properties where contamination was found. The cleanup was conducted under a Voluntary Cleanup Agreement with the Utah Department of Environmental Quality. Ogden is just one example of more than 500 Assessment Pilots announced by EPA's Brownfields Program.



*The Village at St. Anthony Falls redevelopment project in downtown Minneapolis, Minnesota, the cleanup of which was in part funded by the Hennepin County BCRLF Pilot.*

Historically, lack of cleanup funding had been a barrier to revitalizing contaminated properties. The Brownfields Program helped eliminate this obstacle with its Brownfields Cleanup Revolving Loan Fund (BCRLF) Pilots. These pilots provided state and local governments with capital to make low or no interest loans to finance cleanup of brownfields. EPA has announced nearly 170 BCRLF Pilots. For example, the Hennepin County, Minnesota, BCRLF Pilot made three loans totaling \$1.3 million for brownfields cleanup. The loans are helping to transform brownfields in downtown Minneapolis and in the city's Prospect Park neighborhood. The Pilot includes an innovative escalation clause in loan agreements that provides for the loan of additional cleanup funds, if additional contamination is found during cleanup. This unique approach reduces administrative burdens on both the issuing agency and loan recipients. Loans made through the Pilot have catalyzed more than \$40 million in public and private investment for the downtown Minneapolis project. This major development project, called the Village at St. Anthony Falls, includes new retail space and affordable housing for local residents.







*As part of the Twin River Development Complex, the Boyle Furniture Warehouse was refurbished and connected to the new building housing the IRS in Ogden, Utah.*

## EPA's Brownfields Program Funding and Assistance Types

### *Assessment Grants*

- Provide funding to inventory, characterize, assess, and conduct planning and community involvement related to brownfields.

### *Revolving Loan Fund Grants*

- Provide funding to capitalize a revolving loan fund and to provide subgrants.

### *Cleanup Grants (new in 2003)*

- Provide funding to carry out cleanup activities at brownfields.
- Grantee must own the properties for which it is requesting funding.

### *Brownfields Job Training Grants*

- Provide funding for environmental employment training of residents in communities impacted by brownfields.



About 30 percent of properties assessed through EPA Brownfields Pilots were found not to require cleanup.\*



*The STRIVE-Boston Job Training Pilot provided residents of Brooklyn, New York, with hands-on environmental cleanup training.*





*Class is being conducted in Albuquerque, New Mexico at the Bernalillo County Environmental Health Department Job Training Pilot.*

As communities cleaned up brownfields, EPA recognized the need for a workforce with environmental cleanup skills. EPA's Brownfields Job Training and Development Demonstration Pilots funded job training programs for residents of brownfields-impacted communities. The skills developed through these training programs, including the use of alternative or innovative technologies, have prepared the graduates for employment in the environmental field. The Brownfields Program has announced 60 Job Training Pilots/Grants. These pilots were typically located in urban, low-income, and high-minority areas. Job Training Pilots recruited not only disadvantaged residents of communities affected by brownfields, but also those in public assistance programs (including Welfare-to-Work), under- or unemployed residents, single mothers, and veterans. The pilots helped ensure that the economic benefits derived from assessment and cleanup activities stayed in the communities that had suffered from the adverse effects of brownfields.

The Richmond, California Job Training Pilot developed and conducted a three-cycle training program that included training in the use of innovative assessment and cleanup technologies. The Pilot targeted Welfare-to-Work and other disadvantaged residents of neighborhoods surrounding the 900-acre North Richmond Shoreline. The demise of shipbuilding and other heavy industry in Richmond had contributed to entrenched poverty and persistently high unemployment in these neighborhoods. Ninety-seven percent of participants in the job training program graduated. Seventy-seven percent of those graduates obtained employment with an average hourly wage of \$14.75.

Brownfields Pilots have given communities across the nation the freedom to develop innovative approaches to brownfields cleanup and redevelopment tailored to meet their unique needs. Communities have welcomed this opportunity, as demonstrated by the fact that the number of pilot applicants rose from more than 100 in 1995 to more than 1,300 in 2003.





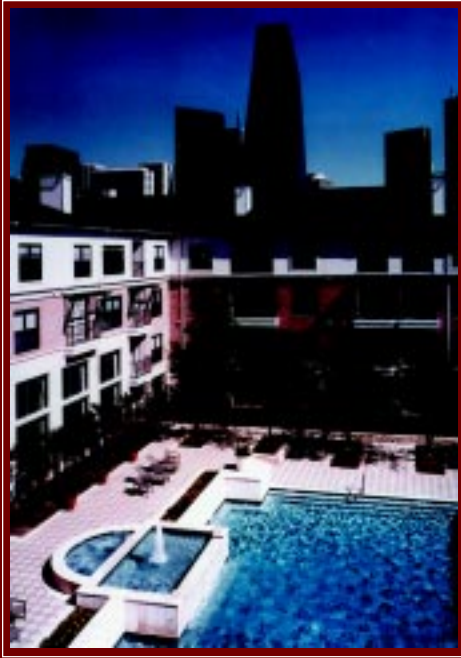
## Creating Partnerships

Communities have access to a patchwork of federal and state programs with resources and expertise to assist various aspects of brownfields projects. However, each of these programs is designed to meet a specific need or respond to a particular problem. It is often difficult for agencies to work beyond their traditional program limits. At the local level, it is hard for communities to navigate the maze of agency programs. EPA worked to bring agencies together and provide the context each agency needed to evaluate how its programs could address brownfields issues.

In 1996, EPA launched a landmark partnership effort, bringing together more than 20 agencies and nonprofit organizations to form the Brownfields National Partnership. The Partnership focused on the range of issues faced by communities impacted by brownfields. Beyond the environmental threat, brownfields communities often face unemployment, substandard housing, outdated or faulty public infrastructure, crime, and a poorly-skilled local workforce. The Partnership's Action Agendas detailed how their individual programs would work more creatively and productively for these communities. In Smithville, Texas, a federal-state partnership successfully aided the cleanup and redevelopment of the abandoned Marhil Manufacturing property. EPA provided funding for the assessment; the city then worked closely with the state voluntary cleanup program to determine acceptable cleanup standards. The city combined its own funding with \$23,500 from the Economic Development Administration (EDA) to develop a marketing plan for the property. The city purchased the property and leased it to a small furniture manufacturer, creating seven new jobs. In 2002, the Administration reinforced and added vigor to this national brownfields partnership with 100 additional new commitments.

*Volunteers at the Stevenson Street Habitat for Humanity property in Fairfax, Virginia, attend the signing of the EPA and Habitat for Humanity Memorandum of Understanding on February 13, 2002.*





*The Dallas, Texas Assessment Pilot and Showcase Community worked together to help ensure the construction of a new multi-family housing complex accommodating 540 families.*



*Construction activities are underway on the former Jefferson North End property in Dallas, Texas.*

Over three years, the Partnership designated 28 Brownfields Showcase Communities to demonstrate the benefits of partnerships of federal, state, tribal, and local governments, as well as nongovernmental organizations. Showcase Communities received targeted technical and financial assistance to support their efforts to restore and reuse brownfields. In addition, a federal staff person, loaned to the community, helped the community coordinate technical and financial support, and handle the myriad of environmental issues. The success of Showcase Communities projects—such as those in Dallas, Texas; Stamford, Connecticut; and East Palo Alto, California—has proven the value of public-private collaboration at all levels in addressing brownfields.

In addition to working with other federal agencies, EPA has championed the importance of brownfields cleanup internationally, and has collaborated on cross-border initiatives with Canada and Mexico. Through international organizations, such as the United Nations, Organization for Economic Cooperation and Development, and the European Union, EPA has supported research into technical approaches and policy options with potential for replication in this country. The U.S. program has benefitted from the international interaction, transferring ideas such as Groundwork Trusts from the United Kingdom. Groundwork Trusts are independent partnerships between the public, private, and voluntary sectors in England, Wales, and Northern Ireland working to improve the quality of the local environment, the lives of local people, and success of local businesses. In 1996, the National Park Service's (NPS) Rivers & Trails program, together with the EPA's Brownfields Program, launched the Groundwork USA Initiative to transform blighted urban neighborhoods. NPS and EPA have provided financial and community planning assistance to focus on improving the environment, economy, and quality of life through local action.





Since 1996, EPA has sponsored annual National Brownfields Conferences as a forum for investors, developers, property owners, municipalities, states, tribes, community groups, technical experts, and academic institutions to share the latest research on brownfields issues. The conferences provide stakeholders an opportunity to exchange successes and lessons learned, as well as find out about new ideas and opportunities. The conferences have helped new partnerships emerge, and have encouraged more people to see brownfields as opportunities. In addition, they provide momentum to keep the Brownfields Program operating and expanding. The tremendous growth in stakeholder interest is clearly demonstrated by the increasing attendance at annual Brownfields Program conferences. The first Brownfields conference, held in Pittsburgh in 1996, drew approximately 1,000 attendees. The Brownfields 2002 Conference in Charlotte, North Carolina, had over 3,300 registrants.

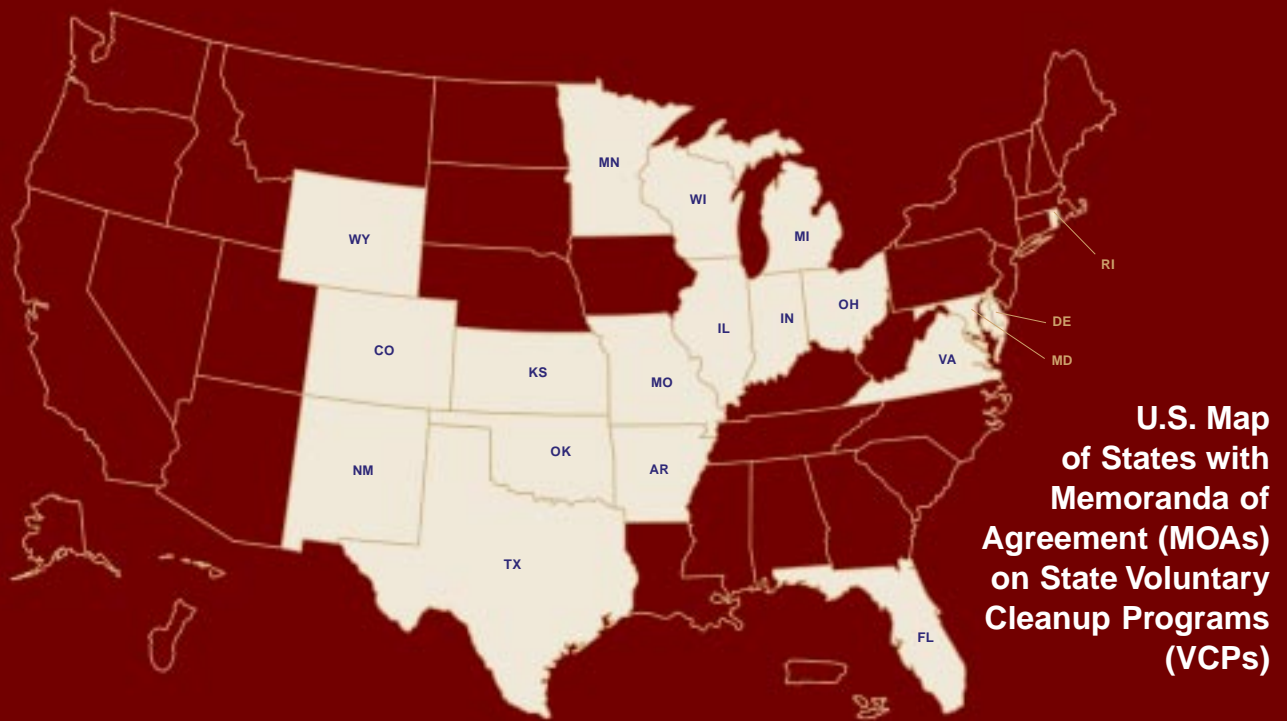


*Participants at the Brownfields 2002 Annual Conference held in Charlotte, North Carolina. (Photo Courtesy of ICMA.)*

To meet the challenges posed by brownfields projects, EPA has consistently stressed the importance of partnerships. EPA has partnered with diverse agencies, all levels of government, and international organizations to focus attention on brownfields, and to access resources. In addition, by sponsoring annual national conferences, EPA has provided a forum for all the players in brownfields cleanup and redevelopment to network and exchange information.

### Annual Brownfields Conference Attendance From 1996 Through 2002





## Working with States and Tribes

As the federal Brownfields Initiative matures, the relationship between EPA and state and tribal governments continues to develop and grow. Under the Brownfields Program, EPA partnered with states to develop Memoranda of Agreement (MOAs) that clarified roles and responsibilities and encouraged the cleanup of contaminated properties. By August of 2003, EPA had signed MOAs with 19 states. In addition, EPA signed RCRA Memoranda of Understanding with a number of states.

Seeking to support the development of state and tribal voluntary cleanup programs, EPA provides financial and technical assistance to states and tribes. Recognizing that brownfields cleanup and redevelopment required partnering with all levels of government, the financial and technical assistance focuses on creating or increasing state and tribal capacity to meet the challenges posed by brownfields cleanup and redevelopment. EPA also provides assistance through its Targeted Brownfields Assessments (TBA) Program, which enables EPA, states and tribes to conduct environmental assessments, investigate cleanup options, and develop cleanup estimates.



**Targeted Brownfields  
Assessments were completed  
at over 900 properties.**





## Clarifying Liability

For some time, through the issuance of guidance and enforcement discretion policies, EPA has worked to clarify federal liability, particularly under CERCLA, that had hindered brownfields cleanup and redevelopment. Over the past decade, the Agency has streamlined administrative practices and clarified enforcement policies for prospective brownfields purchasers, developers, and lenders. For example, EPA developed and used liability management tools, such as “comfort/status” letters and “prospective purchaser agreements,” that provide additional certainty for developers or lenders that they will not have to pay for contamination they did not cause. Clarifications of enforcement policies and the use of such tools changed private sector perception of brownfields from “too risky” to “worth considering” for redevelopment.

EPA also removed thousands of lower-risk properties from the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Inventory, the database of potentially hazardous sites under EPA’s Superfund Program. EPA had no further response action planned at the vast majority of these properties. Separating these properties from the sites still under consideration for federal response action was extremely important in



*The Emeryville, California Assessment Pilot facilitated the redevelopment of an industrial property into a multi-use retail space, including a town center.*



removing the stigma of contamination from the properties. This process gave comfort to lenders interested in financing brownfields redevelopment projects. According to Jim Smith, former Brownfields Pilot Coordinator for Buffalo, New York, EPA's removal of the former LTV Steel property from CERCLIS cleared the way for progress by assuring those connected to the property that no further federal action was expected—"We probably couldn't have done this [the cleanup and redevelopment] without those assurances."

## ***Creating a Win-Win Situation***

Through its initial years, EPA's Brownfields Program evolved to meet the changing needs of its stakeholders and to incorporate lessons learned. As the program matured, its appeal grew as it demonstrated that brownfields cleanup and redevelopment were a "win-win" opportunity for all stakeholders.

Property owners, developers, and investors were provided with tools to aid in brownfields cleanup and redevelopment. Congress passed the Brownfields Tax Incentive as part of the Taxpayer Relief Act, enacted in 1997 and amended in 2000, to make environmental cleanup costs fully deductible in the year they are incurred. EPA's actions to remove properties from CERCLIS provided peace of mind to brownfields stakeholders. As a result, lending institutions have become more willing to consider investing in brownfields redevelopment.



*The "Phillips to the Falls" project, is transforming the Sioux Falls, South Dakota riverside. In 1978, the riverbanks were dominated by underused and abandoned industrial and commercial buildings. Today, the riverbank is known as Falls Park and is the centerpiece of downtown Sioux Falls with its 300-foot waterfall.*



**"The state gets a contaminated site cleaned up, and we create jobs for the community. It's a win-win situation for everybody,"**

*—Tom Obrecht, Maryland developer,  
told Business Week magazine in 1996*



*Located on a former junkyard, the Mackenzie Bakery is open for business in Kalamazoo, Michigan.*

State, tribal, and local governments saw successful Brownfields Pilots open the door for cleaning up thousands of properties, and increasing prosperity in their communities through increased revenues from property, income, and sales taxes. "The state gets a contaminated site cleaned up, and we create jobs for the community. It's a win-win situation for everybody," Tom Obrecht, a Maryland developer, told *Business Week* magazine in 1996.

Environmental Justice has been one of the consistent themes of EPA's Brownfields program. Environmental groups saw thousands of environmental assessments completed, cleanup plans developed, and redevelopment efforts moved forward in hundreds of communities. In addition, brownfields redevelopment efforts were more environmentally friendly than sprawl-producing alternatives that could cause destruction of sensitive habitat, and reductions in water and air quality.

Most importantly, thousands of citizens in communities affected by brownfields saw real improvements in their communities, replacing hopelessness with pride and optimism. Eyesores turned into new homes, health care facilities, new parks and recreational areas, museums, and cultural centers. Community residents received training to join the environmental workforce. Returning brownfields to productive use created new jobs, generated additional tax revenues, and stimulated increased investment in community revitalization.

In community after community, EPA's Brownfields Program has proved that effective partnerships can convert thousands of dollars in federal investment into millions of dollars of support, building momentum that continues to turn brownfields into community assets. The achievements of EPA's Brownfields Program during its first nine years have provided a foundation from which to take on the challenges of the future. The next chapter looks at the impact of EPA's Brownfields Program in individual communities and neighborhoods throughout the country.





# Revitalizing



*The Venetian Wall, an eighty-foot black stainless steel structure, holds 109 Chihuly glass sculptures.*

*The Tacoma, Washington Assessment Pilot facilitated the construction of the Museum of Glass International Center of Contemporary Art and the Chihuly Bridge of Glass on a former industrial property. The Venetian Wall, Crystal Towers, and Seaform Pavilion are part of the Chihuly Bridge of Glass connecting the Thea Foss Waterway with downtown Tacoma, Washington.*



# Communities

Throughout the nation, the impact of EPA's Brownfields Program is seen and felt in hundreds of neighborhoods. The program has helped people transform their communities into healthier, more vibrant places to live. Many communities have attracted new businesses and residents, creating new jobs, increasing tax revenues, and increasing property values. Following are a few of the stories that illustrate the myriad of benefits the program has brought to communities.

## ***Making the Environment Cleaner and Safer***

Cleaning up brownfields improves the environment. It eliminates the risk of exposure to harmful contaminants in the places where people work and live, as well as the potential for contaminants to pollute surrounding ecosystems.

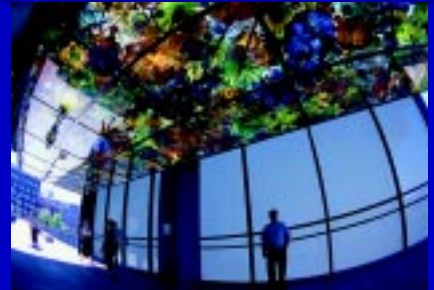
Through its Brownfields Assessment Demonstration Pilots, EPA has helped communities understand the risks brownfields pose by enabling communities to assess thousands of potentially hazardous properties. These assessments have given these communities the information they need to begin the cleanup and redevelopment process.



*Rising 40 feet above the center of the bridge are two Crystal Towers, each holding 63 polyvitro crystals.*



*A love of the ocean inspired Dale Chihuly, world famous glass artist, in creating the Seaform Pavilion.*



*The Seaform Pavilion, a 50 by 20-foot plate glass ceiling, holds 2,364 sculptures suspended midair.*



**Across the country, 20 loans totaling \$5.1 million have been made to clean up brownfields through BCRLF Pilots.**



*A Harley Davidson motorcycle shop was constructed on a former brownfield with the help of the Stamford, Connecticut BCRLF Pilot.*

For 11 years, students attending Quark Middle School in one of Hartford, Connecticut's, poorest neighborhoods were forced to pass an unsafe and unsightly dump full of tires, mattresses, oil cans, and other debris. The Chestnut/Edwards Street property had once been home to a paint store before being abandoned. The city of Hartford used pilot funding to perform environmental assessments on the property and discovered high levels of lead contamination, making cleanup a major priority. With funding from several organizations, the city was able to turn the property into recreational greenspace and a garden, thereby removing the risk of lead exposure to children in the community.

After helping communities understand the risks posed by brownfields, EPA's Brownfields Cleanup Revolving Loan Fund (BCRLF) Pilots helped them clean up many of these properties, protecting people's health and the environment. These pilots provided funding to enable communities to create revolving loan fund programs, which offered loans to pay for cleaning up contamination. For example, a \$160,000 loan from the Stamford, Connecticut BCRLF Pilot helped Blues Brothers LLC clean up an abandoned, 75-acre brownfield. The area is now home to a new Harley Davidson dealership and maintenance facility. Environmental cleanup of soils containing polychlorinated biphenyls (PCBs), metals, and other contaminants was completed about a year after the BCRLF loan agreement was signed. In all, nearly 3,500 tons of contaminated soil were removed at a total cost of \$395,000. The Harley Davidson shop opened in November 2000, and the loan was repaid, thereby making BCRLF dollars available for future projects.



*A bird-watching promenade was constructed on the site of a green-building Eco-Industrial Park in Cape Charles, Virginia.*

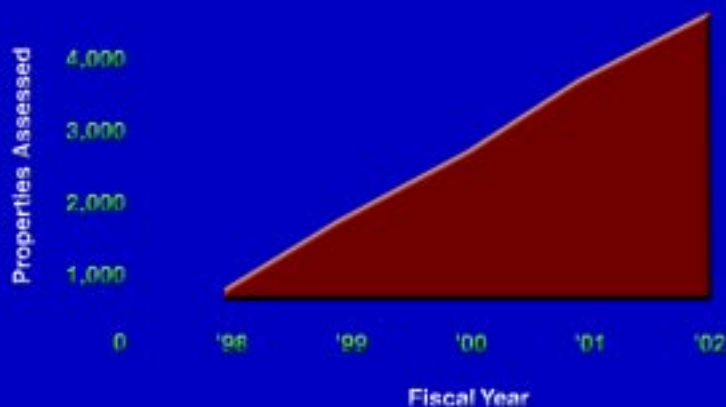
Other brownfields pilots incorporate "green" building practices to ensure the sustainable use of natural resources. "Green" building practices include sustainable site design as well as energy, water, and raw material conservation. Capes Charles, Virginia, made "green" design a priority in its plans to redevelop a 25-acre town dump at the heart of the town's 200-acre Sustainable Technology Park. Assessment and cleanup of the dump paved the way for construction of a 31,000-square-foot facility that includes a solar electric roof system capable of generating 42 kilowatts of power for the building's tenants. Wetlands were created around the building as a natural landscaping enhancement, and the facility features indoor air quality monitoring, skylights for natural lighting, and porous storm water runoff chutes.





## Cumulative Properties Assessed by U.S. EPA Assessment Demonstration Pilots\*

Assessment data from FY 1993–1997 is included in FY 1998.



Since 1995, Brownfields Assessment Pilots have assessed over 4,300 properties.\*

## Preserving Pristine Areas

Brownfields projects also allow communities to reuse land, often located in community centers, reducing the pressure to develop pristine or unused land in outlying areas. “Smart growth” benefits of brownfields reuse include reduction of vehicle miles traveled and associated improvements in air quality, as well as protection of ecosystems, watersheds, and farmland. A study conducted by George Washington University found that redeveloping one acre of brownfields preserves 4.5 acres of greenfields from development.<sup>6</sup> Pointing to the value of brownfields reuse, former Denver Mayor Wellington E. Webb said, “Brownfields sites are eyesores that blight neighborhoods and negatively impact our economic vitality, and in turn the economic vitality of the nation. By redeveloping these brownfields sites, we are also able to utilize our existing infrastructure, including our roads and sewer systems, while easing the pressure to develop open spaces and farmland.”

Like many businesses, Consumers Energy considered relocating on urban greenspace when the lease on its Jackson County, Michigan, headquarters ended. With a combination of assessments and local incentives, the city of Jackson convinced Consumers Energy to locate its new \$113 million headquarters on several brownfields in a three-block area of downtown. Jackson County’s Assessment Pilot funded assessments of six properties, which included a former gas station and auto repair shop, a machine shop, and an iron scrap yard. The city is investing \$43 million in infrastructure improvements, including roads, a sewer, and a parking garage to serve the new headquarters, which was dedicated in July 2003.



*The relocation of the Consumers Energy headquarters on six adjacent brownfields retained 1,400 local jobs in Jackson, Michigan.*

## Cleanup and Restoration

Trenton, New Jersey, with the help of EPA, cleaned up several brownfields along the edge of Assunpink Creek to restore the creek's natural floodplain. Severe rainstorms had often caused the Assunpink to overflow, flooding homes and businesses along its banks. Historical efforts to control the flooding problems had been unsuccessful, and industries encroaching on the waterway had contributed to the burden of environmental contamination. Trenton, an EPA Showcase Community, worked collaboratively with city, state, and federal agencies. In addition to addressing contamination concerns, the Assunpink Creek area redevelopment will provide greenspace and improve access to historical sites.



*Completion of the Waterfront Park, home to the Trenton Thunder baseball team, was facilitated by the Trenton, New Jersey Assessment Pilot.*

The borough of Central City, Pennsylvania, used Assessment Pilot funding to begin restoration of the Dark Shade Creek Watershed. Shutdown of large coal mining operations after World War II had left this Appalachian area with abandoned mines that fouled the environment and devastated the economy. As a result of acid mine drainage, the Dark Shade Creek Watershed was unable to sustain aquatic life. Central City used its pilot to inventory and conduct environmental assessments of brownfields. The U.S. Office of Surface Mining and other federal agencies in the Brownfields Federal Partnership provided resources for the cleanup and redevelopment of properties in the watershed project area. Sharon Harkcom, Project Manager for the Pilot, said, "With the assistance of many federal, state, and local organizations, the refuse piles are diminishing and the acid mine drainage impacted streams are starting to improve, creating a more pleasant living environment."

## Bringing New Hope to Communities and Improving Lives

EPA's Brownfields Program improves people's lives and protects the environment. Through assessments and other activities supported by EPA Pilots, communities proceeded to produce new housing, improve access to services, create more greenspace, and enhance cultural and recreational resources. These achievements gave communities across the nation hope and a fresh outlook on the future. The program yielded positive results in minority, low-income, and disadvantaged communities that had been disproportionately impacted by the adverse effects of brownfields. A 1999 Council for Urban Economic Development study confirmed that the median income of residents living in areas affected by brownfields is 30 percent below the national average.<sup>7</sup> The Brownfields Program mirrors EPA's agency-wide focus on the impact of environmental justice, defined as "the fair treatment of people of all races, cultures, and incomes regarding the development of environmental laws, regulations, and policies."



The emphasis on partnerships and Environmental Justice in EPA's Brownfields Program created opportunities for minority and low-income residents of brownfields communities to collaborate with developers and local governments. This ensured that health and safety conditions improved and local jobs were generated from assessment, cleanup, and redevelopment activities. Disadvantaged communities also participated in reuse planning to ensure that their voices were heard in redevelopment decisions. For example, the Fort Belknap Tribes, whose reservation sits between the Milk River and the Little Rocky Mountains in north-central Montana, focused their energy on ensuring that their brownfields redevelopment plan addressed tribal members' concerns. The Tribes used brownfields funds to identify two primary properties for assessment and revitalization. One of the properties, Snake Butte, is a sacred area used by tribal members for religious ceremonies. Snake Butte was quarried in the 1930s to provide material for construction of the Fort Peck Dam; remnants of both the mining and rail hauling activities were of concern to the Tribes. The Tribal Brownfields Program worked closely with two cultural societies, the White Clay Society and Buffalo Chasers Society, the Tribal Community Council and community members to ensure that environmental investigations and plans for the property were sensitive to cultural needs. Environmental assessments indicate that the property is clean, paving the way for a return to traditional uses in the area.

Assessments and cleanup sparked the creation of new jobs for residents in a disadvantaged area of Lowell, Massachusetts. Lowell's Brownfields Assessment Pilot brought stakeholders together to develop a comprehensive plan to restore the Acre neighborhood, one of the city's poorest. Located within a federal Enterprise Community, 42 percent of its residents live below the poverty line. Assessment and cleanup of three former textile mills and an ash dump led to creation of a new ballpark and a sports arena that together created more than 450 full- and part-time jobs. Lowell was selected as a Brownfields Showcase Community due in part to its significant accomplishments in the brownfields arena. The designation as a Showcase Community made a broader array of federal financial and technical assistance available.

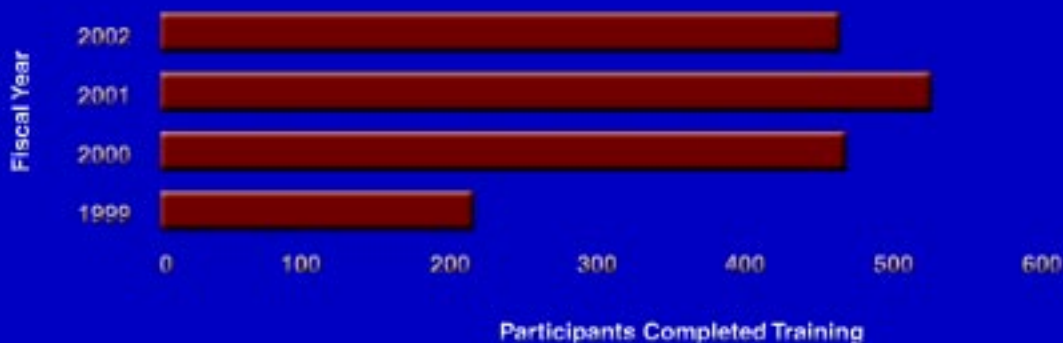


## Providing Training for Environmental Jobs

EPA's Brownfields Job Training and Development Demonstration Pilots have helped people in brownfields communities train for and find jobs in the environmental field including fields that emphasize innovative and alternative treatment technologies. For example, the St. Nicholas Neighborhood Preservation Corporation helped fulfill a demand for skilled environmental workers in the New York City area. The Pilot trained residents in the Williamsburg community of Brooklyn, where the population is predominantly minority, and more than 25 percent of the residents live in poverty. This training enabled participants to meet the demand for environmental skills in innovative technologies, such as air sparging, bioremediation, solvent extraction, and treatment walls. Through other funding sources, the St. Nicholas program offered life skills training, including budgeting, planning, and workplace habits. To supplement classes, all participants were invited to join in evening activities that enhanced their academic and computer skills.

### Brownfields Job Training Pilot—Participants Completing Training (1999 to 2002)\*

*Nationally, 1,740 participants have completed training, and two out of three graduates have found employment.*





*Participants of the Hawkeye Community College Job Training Pilot in Waterloo, Iowa, train at the local Martin Luther King Jr. Center.*



According to Shawn Grindstaff, former Director of the Rural Brownfields Center, Mineral Area College, Missouri: “The College’s Brownfields Job Training Pilot is about dramatic human impact — redeveloping families. It isn’t just about redeveloping contaminated land.” The Mineral Area College Brownfields Job Training Pilot was EPA’s first rural Job Training Pilot. Park Hills, Missouri, where the college is located, is in the Old Lead Belt part of the state, an area with an almost 300-year history of lead mining. This mining legacy left behind more than 3,000 acres of exposed mine tailing and hundreds of acres of brownfields, making the area undesirable to new businesses. The Job Training Pilot faced this challenge head-on, training students with hands-on experience in mine waste assessment and cleanup, with an emphasis on innovative technologies. This practical experience has enabled 85% of program graduates to gain employment.

EPA’s Brownfields Job Training Pilots have ensured that local communities share in the short- and long-term economic benefits of brownfields cleanup and redevelopment efforts by enabling under- or unemployed residents to find sustainable employment in the environmental field. The pilots have also helped communities address brownfields issues by providing trained workers to clean up contaminated properties.



*Graduates of the Mineral Area College Job Training Pilot in Park Hills, Missouri.*



**Brownfields Job Training Pilots trained 1,740 people. Two out of three graduates of Brownfields Job Training Pilot programs attained jobs using their new skills at an average hourly rate of \$12.80.\***



## Making Places for People To Live

For some communities, EPA's Brownfields Pilots led to the creation of places for people to live. In Minnesota, the Twin Cities Metropolitan Council Brownfields Pilot partnered with the Minnesota Environmental Initiative and Twin Cities Habitat for Humanity to perform environmental assessments in Minneapolis and St. Paul. Together they identified 3,000 acres of brownfields in the area. The assessments helped the Pilot verify that five properties owned by Habitat for Humanity were free of contamination and suitable for residential reuse. These properties were ready for Habitat houses. By 2003, Habitat had built 26 single-family homes, several by Habitat's WomenBuild project, which uses all-female volunteer crews.

Senior citizens in the small city of Virginia, Minnesota, have better access to housing thanks, in part, to an EPA Brownfields Assessment Pilot. Once the region's leading producer of iron ore and taconite, the city of Virginia and the surrounding area underwent a severe economic downturn during the 1980s. The city's unemployment and poverty rates remain among the highest in Minnesota. A task force found that focusing on brownfields adjacent to open mine pits for redevelopment would provide opportunities for low- to moderate-income housing. Initial assessments of one of these properties found no need for cleanup, opening the door for quick sale and construction of a new senior citizen housing facility. The \$7.2 million redevelopment project includes a 24-bed facility for persons with Alzheimer's, an 89-unit assisted living facility, and 20 apartments.



*In Minneapolis, Minnesota, several Habitat for Humanity homes were constructed on former brownfields that were found to have no contamination.*



The partnership developed for the Twin Cities Metropolitan Area Assessment Pilot laid the foundation for similar projects in other parts of the country. Under a Memorandum of Agreement signed in 2002, EPA and Habitat for Humanity International pledged to cooperate to build energy-efficient homes on former brownfields throughout the nation.







*A senior citizens' housing facility constructed on former open mine pits in Virginia, Minnesota. The open mine pits were determined to contain minimal contamination by the Virginia, Minnesota Assessment Pilot.*



In Fort Wayne, Indiana, an EPA Assessment Pilot cleared the way for a project that is constructing 34 new homes and a 50-unit apartment building for seniors. After assessment of a former oil pump manufacturing and warehouse property, city and state funds provided for cleanup and restoration of the properties, including demolition of the property's charred and unsafe buildings and removal of tires from a tire storage area. Plans for building the homes and apartments were assured when the city financed installation of essential public infrastructure with a grant from the U.S. Department of Housing and Urban Development's (HUD) Brownfields Economic Development Initiative, along with state and local funds.

## Creating Parks and Recreational Areas

Many communities work to transform brownfields into parks and open space. By building pedestrian walkways, riverfront parks, bike trails, and soccer fields, communities create the recreational opportunities that urban areas often lack. Providence, Rhode Island, a Brownfields Showcase Community, worked with federal, state, and local partners on the Woonasquatucket River Greenway Project. The city created a 6.6-mile bike loop that connects the Providence Place Mall, once an abandoned rail yard brownfield, with the Button Hole Golf Course, another former brownfield. As part of the project, EPA Assessment Pilot funds were used for the initial assessments of two former mills as well as cleanup planning. One of the properties is being redeveloped into a park, which will offer greenspace, a stage, and a canoe dock.



*The Dallas, Texas Assessment Pilot and Showcase Community worked in cooperation to facilitate the construction of the Larry Johnson Recreation Center. The center was built on a former vacant lot that was found to have no contamination.*

In Dallas, Texas, a brownfields redevelopment boom led to more recreational opportunities for low-income residents. Dallas, a Brownfields Showcase Community, leveraged more than \$887 million in public and private funding for cleanup and redevelopment of the city's blighted areas. One of these properties, a two-and-a-half acre vacant lot located in a low-income residential community, was transformed into a recreation center. Professional basketball player Larry Johnson, who grew up in the neighborhood, donated \$1 million to the city for the recreation center construction. With additional funding from a HUD Block Grant, the Larry Johnson Recreation Center was built and offers local residents a full-size basketball court, meeting rooms, locker rooms, a kitchen, offices, and room for expansion of a second full-size gymnasium.

## **Building on Historical and Cultural Heritage**

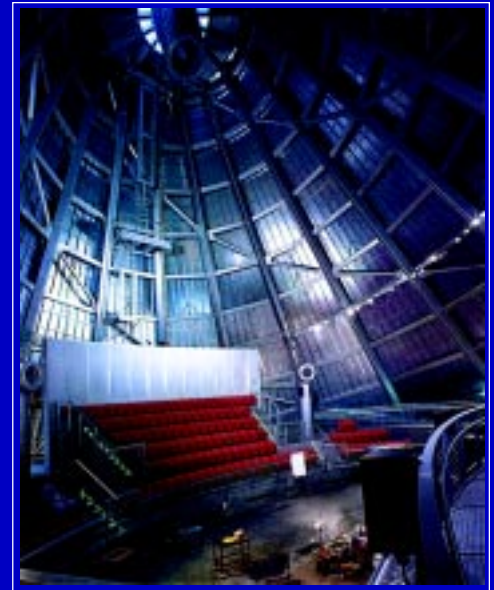
Recognizing unique historical and cultural aspects of a community in cleaning up and redeveloping brownfields can enhance community character and be a source of pride for residents. More communities are using brownfields redevelopment as a way to preserve their history and culture. Several of EPA's Brownfields Pilot communities have constructed new buildings or renovated old ones and created new museums and cultural and educational community centers; some also have contributed to efforts to restore and preserve historic districts.

One of the most striking examples of success in transforming a brownfield into a cultural gem is the Museum of Glass in Tacoma, Washington. The museum, which spotlights internationally-acclaimed glass artist Dale Chihuly and glass artists from around the world, opened in 2002. The redevelopment continued with the city of Tacoma providing \$8 million for construction of a parking garage, a rooftop public plaza, and esplanade. The city, Washington State, and the Federal Highway Administration also provided \$4.8 million for a pedestrian walkway—the "Chihuly Bridge of Glass"—that links the area to downtown Tacoma. The walkway complements the Museum of Glass with large exhibits and displays of unique glass artwork donated by Dale Chihuly and the Museum. The EPA Assessment Pilot played a critical role in the creation of this \$58 million, privately-funded museum. The Pilot was used to create the Thea Foss Waterway Development Authority. The Authority's purpose is to facilitate redevelopment of the city's waterfront while eliminating





*Tacoma, Washington's Museum of Glass International Center of Contemporary Art included a Hot Shop Amphitheater to allow patrons to observe artists at work.*



contamination, providing public access, and preventing future blight. To that end, the Authority created a Master Redevelopment Plan. In addition, the Pilot helped the city leverage the money needed to build the bridge and museum.

There have been impressive transformations of brownfields into cultural resources in other parts of the country as well. In Louisville, Kentucky, environmental assessments completed through a Brownfields Pilot have cleared the way for redevelopment of a former historic streetcar complex, known as the “Trolley Barn.” The redevelopment effort, led by the Louisville and



*In Louisville, Kentucky, the former “Trolley Barn” property will become home to the Kentucky Center of African-American Heritage.*

Jefferson County African-American Foundation, culminated in a groundbreaking ceremony in February 2003. After environmental cleanup, the old “Trolley Barn” property will become the site of the \$23 million Kentucky Center for African-American Heritage. The Center will be situated in the Russell neighborhood, the first Louisville neighborhood in which African-Americans began buying their own homes. The Center plans to be the first institution in the United States to detail the achievements of African-American citizens throughout the history of a state.



## ***Bolstering the Economy***

In addition to environmental and community benefits, EPA's Brownfields Pilots have spurred economic development, creating new opportunities for communities burdened by brownfields. Brownfields projects generate direct investment in communities in the form of cleanup and construction expenditures. Brownfields projects provide temporary jobs during the cleanup and construction phases, and permanent jobs at the new buildings, health care centers, museums, parks, and countless other facilities created. The resulting expansion of the local tax base increases local tax revenues. "Park Enterprises would not [have moved] to the Erie Canal Industrial Park if the Pilot were not working to revitalize the adjacent land."—Mark Gregor, Manager of Rochester, New York's, Division of Environmental Quality. Park Enterprises is a light manufacturing and assembly company that located in the Erie Canal Industrial Park in the spring of 1998 on a 4.6-acre parcel of land adjacent to a Pilot-targeted brownfield.

As these investment dollars, wages, and tax revenues rippled through the economies of Brownfields Pilot communities, they created additional economic benefits as new businesses purchased goods and services, and as employees patronized local businesses.



*As part of the Camden Square redevelopment, a former mill building was renovated into the Design Center of the Carolinas. Facilitated by the Charlotte, North Carolina Assessment Pilot, the new design center provides space for studios, meetings, and art displays.*

## **Bringing Jobs Back to Communities**

EPA's Brownfields Program supported brownfields redevelopment efforts that brought thousands of new jobs to communities throughout the nation. For example, nearly 500 new jobs resulted from a project that began with environmental assessments through the Houston, Texas Assessment Pilot and Showcase Community. With the Pilot's help, a former 450-acre municipal landfill became two state-of-the-art, 18-hole golf courses, creating 60 new jobs. The transformation of a 38-acre cluster of brownfields into a 42,000-seat baseball stadium and areas for cafes, retail shops, and a theater created about 230 more jobs. These projects led the way for redevelopment of other brownfields into a new performing arts center complex, which created about 200 more jobs. The cleanup and redevelopment touched off by the Pilot stimulated the overall revitalization of downtown Houston, making way for new businesses that generate even more jobs.





*The development of the American Can Company building has resulted in 400 jobs for the residents of New Orleans, Louisiana.*



New Orleans, Louisiana, is one of the many cities where there are now new jobs on former brownfields. The city has, in addition to brownfields, an abundance of port, rail, and highway systems that transport large volumes of hazardous materials, impacting its primarily African-American population. Supported by the EPA Brownfields Program, New Orleans rehabilitated the historic factory building into retail/commercial space and residential apartments, creating about 40 new cleanup and construction jobs. The new American Can Renewal Project also provided the city with about 420 new factory and light industrial, office, and retail jobs. The project not only attracted new businesses but also made way for expansion of existing ones.

## Increasing Tax Revenues

According to the 2003 “Recycling America’s Land Report,” issued by the U.S. Conference of Mayors, cleanup and redevelopment of brownfields could produce as much as \$1.9 billion in new tax revenue each year.<sup>8</sup> The ability to generate new tax revenue is especially important to cities and towns where the demand for resources is increasing as budgets are getting tighter. EPA’s Brownfields Pilots have resulted in increased tax revenue for communities all over the country. The Brownfields Assessment Pilot in Emeryville, California, illustrates the impact brownfields redevelopment has on tax revenues. EPA and Emeryville have been working together since 1996, benefitting nearly 20 properties. Much of the city’s industry abandoned the area during the 1970s. As a result of the Pilot, the blight left by this exodus, is gradually being replaced by prosperity and cutting-edge research and development facilities. Since 1996, the Emeryville Pilot has leveraged hundred of millions of dollars in public and private investment in brownfields cleanup and redevelopment. Thus far, the redevelopment of brownfield properties formerly used for heavy industrial purposes into office buildings and retail has resulted in \$3 million in property tax revenue and \$1.5 million in sales tax every year.

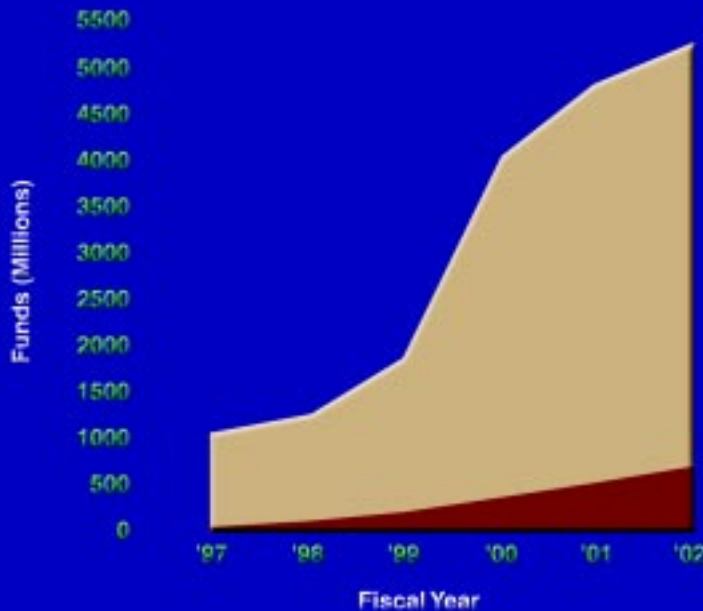


As part of the riverfront development plan in Omaha, Nebraska, the new campus for the Gallup Organization was constructed on a former brownfield.

## Leveraging Investment in the Community

EPA's Brownfields Pilots have leveraged billions of dollars to support brownfields projects in communities throughout the United States. This includes money invested in cleaning up brownfields as well as money invested in constructing the new facilities. After the completion of environmental assessments under the Omaha, Nebraska, Pilot, the redevelopment of one of its targeted sites into a new campus for the Gallup Organization created about 750 temporary jobs. In addition, the Pilot leveraged \$81 million for construction of the new campus facilities. The Omaha Pilot leveraged another \$4.8 million in construction dollars for a regional hiking and biking trail; \$21.6 million for a pedestrian bridge crossing the Missouri River; and \$35 million for a new National Park Service regional headquarters on targeted brownfields.

## EPA Funding Leverages Billions in Public and Private Investments\*



Since 1995, EPA's total investment of nearly \$700 million in the Brownfields Program has leveraged \$5.09 billion in public and private funding for Brownfields properties.

■ Brownfield Pilot Leveraged Funds  
■ U.S. EPA Brownfield Program Investment







*Commerce Center at Martin Luther King Business Park.*

## Sparking More Revitalization

One of the most important contributions of EPA's Brownfields Pilots is that they often sparked cleanup and redevelopment of whole corridors of blighted property. In St. Louis, Missouri for example, the original target area for the Brownfields Pilot was the 26-acre, 16-block Dr. Martin Luther King Business Park. Using the original Brownfields Assessment Pilot funding to kick start the project, over \$19 million in private-public investment has been leveraged to construct over 450,000 sq. ft. of new office, warehouse, and distribution space. With additional funding from EPA, St. Louis expanded its brownfields initiative to the North Riverfront Industrial Corridor, located immediately north of downtown St. Louis and stretching four miles along the Mississippi River. The goal of the Pilot is to assist brownfields redevelopment within the Corridor in the creation of two large, campus-style business parks. The business parks will provide expansion opportunities for existing businesses as well as offer companies new to the St. Louis region a place to build and provide jobs all within the urban core. Over \$4.0 million in initial land acquisition funding has been leveraged to date as the city begins this visionary 10-year redevelopment initiative.

EPA's Brownfields Program leveraged billions of dollars to support cleanup and redevelopment efforts, and thousands of temporary and permanent jobs at brownfields throughout the country. The total economic impact may not be known, because generation of jobs and investment continues long after federal funding is exhausted. It is clear, however, that funding provided by the Brownfields Program has been critical in helping communities overcome the initial hurdles of assessing and remediating contaminated properties and in leveraging other sources of funding for redevelopment activities.

## ***Putting the Pieces Together***

Environmental improvements make neighborhoods safer and healthier. Civic improvements such as increased access to services, increased greenspace, and more cultural and recreational opportunities renew community character, bring hope to neighborhoods, and improve residents' quality of life. In addition, work force training, expenditures on brownfields redevelopment, and the creation of new jobs stimulate local economies. State and local governments benefit from increased income, sales, and property taxes, resulting from new employment and expanded businesses. Many Brownfields Pilot communities experience benefits in more than one of these areas.

Portland, Oregon, is a prime example of brownfields redevelopment that has resulted in environmental improvement, better access to services, revitalized neighborhoods, increased community pride, and leveraged jobs. As Oregon's oldest and largest industrial, shipping, and commercial center, Portland has a high concentration of abandoned and underused properties. Historically, the waterfront provided jobs to low-income and minority citizens in nearby North and Northeast Portland. However, manufacturing jobs in the area have shrunk dramatically, leaving poverty rates greater than 10 percent and unemployment rates up to 35 percent in these federally designated Enterprise Community neighborhoods. Meanwhile, the threat of contamination and liability has limited reuse and redevelopment at these sites, while suburban sprawl continues to put pressure on the urban growth boundaries and test the Metro area's land use plan. The city estimates that 484 properties have confirmed contamination, and contamination is suspected at as many as 600.

*Formerly the site of Rose City Plating, this property has been redeveloped into a mixed-use space which includes a public library. A No Further Action letter was issued for the property, and redevelopment was started in January 2000, providing 26 jobs.*







*Facilitated by the Portland, Oregon Assessment Pilot, the former Wagstaff Battery property was redeveloped into the Port City Development Center.*

Since receiving its first Brownfields Assessment grant in 1996 and being designated an EPA Showcase Community in 1998, Portland has made strides in brownfields redevelopment by enthusiastically addressing every stage of the process, from community outreach to reuse planning and redevelopment. The city made community outreach a top priority, keeping citizens from low-income communities involved in brownfields reuse decisions and holding neighborhood meetings and workshops to keep citizens involved. As a Showcase Community, Portland selected five properties in late 2002 for cleanup and redevelopment. The diverse former and planned uses for the properties illustrate Portland's commitment to bringing together all of the benefits of brownfields redevelopment. For example, lead contamination is being cleaned up at a former battery recycling facility where the City and County are helping to redevelop the property into a new location for the Port City Development Center. This nonprofit organization provides training, work placement, arts programs, and residential living skills to developmentally-challenged individuals. Redevelopment activities at former gas station sites have resulted in businesses and services ranging from coffee shops and offices to senior housing and space for retail, community services, and senior daycare. The city is redeveloping another area into a community-funded and maintained recreation area for local residents. Portland's Mayor Vera Katz summed it up: "These projects are what make the Showcase project worthwhile. There are a number of small properties in North and Northeast that have stayed vacant and neglected for too long. But now, we have the opportunity to help redevelop the lots, and hopefully serve as a catalyst that will bring new jobs and new life to the neighborhood."

EPA's Brownfields Program has improved the environment, the economic conditions, and the quality of life for thousands of people living in communities affected by brownfields. The following pages describe how each EPA Region tailored its Brownfields Program to address the unique characteristics and needs of its constituent states.



# 1

## Brownfields in Small Towns

Communities in the small towns of New England's Region 1, in addition to the large, heavily-industrialized cities, suffer from the contamination and blight of brownfields. The center of small towns is often occupied by an abandoned factory, tannery, or mill that once brought jobs and economic stability to the community, but now stands empty. These small towns have found it difficult to compete for EPA's Brownfields Pilots and Grants.



Region 1 has made a special effort to level the playing field for New England's small towns. After tackling many of the brownfields in cities such as Boston, Massachusetts, and Hartford, Connecticut, Region 1 began marketing the brownfields program to New England's regional planning commissions, which bring together nearby communities to jointly pursue common planning goals. Region 1 is sparking redevelopment even where regional planning commissions are not present or are not addressing brownfields. Using Targeted Brownfields Assessment funds, Region 1 has been able to help small communities assess their abandoned properties and get the redevelopment process started.

Since working with the first revolving loan fund pilots to make a loan, Region 1 has continued to market the BCRLF program as a source of funding for brownfields cleanup. BCRLF grants provide funding to capitalize a revolving loan fund which is used to provide low- or no-interest loans for brownfields cleanup. Modeling their programs on Region 1's success, states have also set up their own revolving loan fund programs, including New Hampshire's highly successful \$2.4 million fund.



### Highlights of Region 1 Successes

#### **Bates Mill, Lewiston, Maine**

Using EPA grants and a property-specific revolving loan fund capitalized by EPA, Lewiston redeveloped the former Bates of Maine Woolen Mill into a complex that features a bank, restaurant, and several start-up companies. The building was renovated from the inside-out, keeping as much of the existing structure as possible and minimizing demolition.

#### **Whitney Screw Property, Nashua, New Hampshire**

The first loan under New Hampshire's Revolving Loan Fund was used to assist cleanup efforts at the Whitney Screw property, a former industrial site in the center of town. The community also tapped into EPA assessment grants and state resources to redevelop the property into an inviting space for retailers, including Goodale's Bike, New England's largest bicycle dealer.

**Region 1: Serving Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, and ten Tribal Nations.**





# Life After EPA Funding

Brownfields in Region 2 range from very old industrial properties in the Northeast U.S. to abandoned pharmaceutical and energy properties in Puerto Rico. With such diverse challenges, cultivating partnerships with communities enables the Region 2 Brownfields Program to provide resources that go beyond the basic needs of the community.

Region 2 has developed unique relationships with other federal and state agencies, including the Army Corps of Engineers, Housing and Urban Development, Department of Transportation, New Jersey Department of Environmental Protection, New York Department of Environmental Conservation, and the Puerto Rico Environmental Quality Board. These and other partners help Pilots build entire brownfields programs that continue well beyond the EPA grant and remain as

viable, long-term local efforts to clean up and redevelop contaminated properties.

The Region 2 Brownfields Team becomes active partners with the Regional Pilot recipients and is committed to providing the resources needed to successfully implement a brownfields program. Starting with a kick-off workshop for each newly awarded grantee, Region 2 helps the communities start up their brownfields program by introducing them to brownfields concepts. The process continues with quarterly state roundtable meetings and interagency workgroup meetings with grantees and various state and federal agencies. Pilots get help establishing and keeping their brownfields programs alive with technical assistance and training from EPA offices and partners like the New Jersey Institute of Technology.

## Highlights of Region 2 Successes

### 507 Elm Street, Kearney, New Jersey

Redeveloping a former tool and dye facility, abandoned for two decades, the town of Kearney is creating much needed park space for local residents. With funding from the Hudson County Brownfields Pilot and input from a stakeholder group, the town is transforming the property through cleanup and redevelopment into a toddler park, giving residents easier access to greenspace.

### Voluntary Cleanup Program, Puerto Rico

Under a cooperative agreement from Region 2, Puerto Rico's Environmental Quality Board (EQB) has made significant steps in establishing a Voluntary Cleanup Program (VCP). The board worked with the New Jersey Institute of Technology and Northeast-Midwest Institute to propose a structure for a Puerto Rico VCP. In August 2000, the Senate of Puerto Rico passed legislation allowing the EQB to implement the program.



**Region 2: Serving New Jersey, New York, Puerto Rico, U.S. Virgin Islands, and 7 Tribal Nations.**

# Greening Brownfields

Throughout mining communities and along the Chesapeake Bay, a major focus of the Region 3 brownfields program has been supporting and encouraging “green” design. Integrating the concepts and technologies of “green building” and “green development” design increases the environmental benefits of brownfields redevelopment. Green design technologies, such as energy efficiency, low impact design, pollution prevention, open space, and beneficial landscaping, provide more environmental benefits than traditional development practices. These technologies result in reduced air and water pollution, water and energy conservation, and reduced solid waste production.

Region 3 designed a workshop for Brownfields Pilot communities at which attendees learned the basics of green design and how it can be incorporated into brownfield redevelopment projects. Several communities in the area have since incorporated green building design into brownfields redevelopment projects, including cities like Baltimore, Maryland, and Washington, D.C., and rural communities like Cape Charles, Virginia.

Building on the greening success in Region 3, EPA launched a national pilot initiative to provide assistance for constructing green buildings on brownfields. In Region 3, the National Aquarium in Baltimore was selected as one of eight Green Buildings on Brownfields showcase projects. The Aquarium’s new Center for Aquatic Life and Conservation, which will house additional space for animal care, breeding, education, and marine mammal rescue operations, will be built on a brownfield. The building’s proposed green design will feature photovoltaics, thermal mass walls, heat exchange technology, innovative ventilation, materials low in polluting volatile organic compounds, and storm water management.



## Highlights of Region 3 Successes

### **Nine-Mile Run, Pittsburgh, Pennsylvania**

An EPA Brownfields Pilot allowed Pittsburgh’s Urban Redevelopment Authority to fully assess a long-neglected 238-acre tract known as Nine-Mile Run, a former industrial slag dump, and the Lectromelt property, a former electroplating plant. In a feat of urban ecological restoration, more than 700 new energy-efficient homes will be nestled alongside a rehabilitated natural habitat area.

### **Whitehall Robins Expansion, Richmond, Virginia**

With expansion of its pharmaceutical research facility, Whitehall Robins brought hundreds of new jobs and millions of investment dollars to northern Richmond, Virginia. The city facilitated the expansion by providing municipally-owned land for the facility and using an EPA Brownfields Pilot to hire environmental consultants for environmental assessment review and advice on detailed cleanup techniques.

**Region 3: Serving Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.**



# Pursuing Environmental Justice

In the southeastern United States, Region 4 is marked by not only small mill and agricultural towns, but also some of the country's fastest growing metropolitan areas. While dealing with inner city blight and sprawl throughout the area, Region 4 is also addressing environmental justice issues by actively engaging communities.



Bringing together federal partners and community groups, Region 4 enhances community awareness and coordination of brownfields efforts among government and community stakeholders, enabling communities to assess, clean up, and redevelop eyesores. For example, in Spartanburg, South Carolina, the Arkwright community used Assessment Demonstration Pilot funding to spark the redevelopment process. These funds enabled this predominantly African-American community, where about 18 percent of citizens fall below the poverty level, to complete a brownfields inventory, assess properties, work with stakeholders on brownfields issues, and obtain input for its cleanup plan.

Webb Corner, a community in Columbia, Mississippi, is home to a population that is 87 percent minorities, with a 67 percent poverty rate and 58 percent unemployment rate. Actively involving all interested parties in the redevelopment of brownfields in areas such as Webb Corner, the city of Columbia formed the Columbia Brownfields Redevelopment Partnership. Inviting community members to discuss plans and voice their concerns in public forums, the partnership is reaching redevelopment decisions that are beneficial to the low-income and minority residents directly impacted by brownfields. The city has tied environmental justice to brownfields redevelopment by using a Brownfields Assessment Demonstration Pilot grant to identify and inventory brownfields, conduct property assessments, and hold public forums and other outreach activities to encourage community involvement.



## Highlights of Region 4 Successes

### Enterprise Zone, Clearwater, Florida

As the site of the first revolving loan fund loan in Region 4, Clearwater is successfully addressing hundreds of properties in the Clearwater Brownfields Area, a state-designated Enterprise Zone. Leading the way for other communities, the city also published an environmental justice guidebook in conjunction with the International City/County Management Association.

### Airborne and Special Operations Museum, Fayetteville, North Carolina

Working with local citizens and state and federal partners, Fayetteville revitalized an area of former car lots and gas stations to pay tribute to the military. Starting the process with a Brownfields Assessment Demonstration Pilot grant, the city transformed abandoned properties into the Airborne and Special Operations Museum.

**Region 4: Serving Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.**



# Partnering for Redevelopment

Brownfields redevelopment is thriving in the older industrialized areas of America's former Rust Belt. With hundreds of old, abandoned industrial properties, the Great Lakes states in Region 5 are ripe for redevelopment. Realizing the importance of state involvement in redeveloping these properties, Region 5 has cultivated strong relationships with state programs, which in turn build and maintain relationships with local communities. With the new Brownfields Law in effect, Region 5 is extending the hand of partnership to its 35 tribes.

In its annual Nuts and Bolts of Brownfields Redevelopment conference, Region 5 builds relationships and encourages partnerships among EPA and state, local, and tribal governments. This five-day training course introduces local government staff and officials to the real-life details of assessing, cleaning up, and redeveloping brownfields. Bringing in representatives of local



communities who are in the process of redevelopment or have successfully completed it, Region 5 illustrates the benefits of partnering for successful brownfields redevelopment. The learning continues throughout the conference with presentations by EPA brownfields staff and professionals in related fields, such as cleanup contracting, finance, insurance, and architecture, and from other EPA offices.

Region 5 facilitated partnering in Hennepin County, Minnesota, to improve Habitat for Humanity's property acquisition process by incorporating environmental assessments into the process. Several groups, including the Metropolitan Council, Minnesota Environmental Initiative, and Braun Intertec, an engineering and consulting firm, work together to screen properties with environmental concerns, allowing Twin Cities Habitat to build housing on properties it otherwise would have been forced to pass over.

## Highlights of Region 5 Successes

### Bairstow Property, Hammond, Indiana

Under a larger project to restore the George Lake watershed, the city of Hammond stabilized a lakeshore ecosystem desecrated with slag at the Bairstow property, a former steel mill slag waste dump. Along with other redevelopment, the property's driving range, nine-hole youth golf course, and planned 18-hole golf course have helped stimulate the local economy and slow a residential exodus.

### Job Training, Toledo, Ohio

Starting with an advisory group that included unions, potential employers, and community groups, Toledo's Job Training program trained residents in skills that included spill cleanup, lead and asbestos abatement, and emergency response. Environmental cleanup jobs are bringing new aspirations to residents in neighborhoods with poverty rates of up to 60 percent and unemployment as high as 31 percent.

**Region 5: Serving Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, and 35 Tribes.**





# Brownfields On the Border

Spanning the Mississippi River delta, the United States-Mexico border, and the great Southwest, Region 6 cleans up brownfields in the nation's backyard. Working through a proactive and aggressive outreach team, the Region is tackling brownfields along the Rio Grande.

Large cities throughout Region 6 are ringed by sprawling suburbs and separated by rural expanses dotted with small towns. Rather than focusing on brownfields in disparate urban areas, Region 6 works on projects clustered across a region, thereby incorporating regional planning into the process and addressing varying landscape and community needs. This method is especially helpful in dealing with the area's ubiquitous oil production sites. These are not just the corner gas station typically associated with petroleum brownfields, but remnants of the area's oil industry.

Along the United States-Mexico border, the Rio Grande Council of Governments (COG) used a Brownfields Pilot project grant to identify brownfields in the Upper Rio Grande area of southern New Mexico and west Texas. The city of El Paso, Texas, was also awarded a Brownfields Pilot project grant to further inventory and assess brownfields in the city's Empowerment Zone. Emphasizing community involvement in redevelopment planning, the city and the COG together are transforming brownfields into building blocks for community revitalization and sustainable urban redevelopment. Along with Region 6, these organizations further pursued this goal with a border brownfields workshop in El Paso. The conference promoted brownfields awareness and collaboration across borders, and sparked a continuous information exchange between the two nations.

## Highlights of Region 6 Successes

### **Native American Cultural Facility, Oklahoma City, Oklahoma**

A Targeted Brownfields Assessment on a former oil field sparked the planning for a Native American museum and cultural center featuring green design elements. Oklahoma City, the Native American Cultural and Educational Authority, Oklahoma Department of Transportation, EPA, and others will soon redevelop the area with leveraged funds from the U.S. Department of Housing and Urban Development, and other organizations.

### **Heifer International Center, Little Rock, Arkansas**

Heifer International, a nonprofit organization that provides food- and income-producing livestock to impoverished families around the world, selected a former light-industrial and transportation property to house its new headquarters. The planned green building will include an education center, an international gift shop, and indoor/outdoor education programming.







# Sustainable Development in the Heartland

Region 7 serves communities in a 4-state region in the heart of America. This Region is largely agricultural with many small communities, some mid-sized towns and a few major urban centers. Communities across this spectrum are challenged by abandoned and underutilized property and the resulting loss of tax base and community pride. They are also challenged by the costs of expanding infrastructure (streets, sewers, power & communication links) to accommodate growth on the fringes and by the resulting environmental impacts to air and water, loss of natural areas and farmland and the need to improve quality of life for residents.

The Region 7 Brownfields Program works directly with communities to assess, cleanup and plan for redevelopment of brownfield properties. Staff provide assistance and encouragement for communities to implement designs which improve environmental quality, reduce energy and water consumption, prevent pollution, increase the quantity of green space and assure sustainable reuse of land and infrastructure. Regions 5

and 7 collaborated to sponsor a Midwest Summit on the Sustainable Redevelopment of Brownfields for community leaders, government organizations and consultants to share information on new technologies and design techniques.

Region 7 is also partnering with other federal, state and local governments and non profit organizations to encourage, through education and incentives, green architecture and landscaping, the development of trails, parks and greenways, community involvement in planning for revitalization, transit and pedestrian-oriented development and reuse of historic buildings.

Region 7 has awarded job training grants to community colleges in the Region to prepare students for employment in the environmental cleanup field and has also partnered internally to assure that all relevant environmental issues are addressed during brownfields assessment and cleanup. As a result of these mutual efforts, there are a growing number of sustainable development actions in the Region.

## Highlights of Region 7 Successes

### **Heritage Trail, Kansas City, Kansas and Kansas City, Missouri**

Kansas City KS/MO has a new Heritage Trail which links Kansas City, MO and Kansas City, KS, connecting recreational open space and parks with employment, commercial, retail and residential centers along the urban riverfront and brownfields redevelopment corridor. Recent brownfield projects include the restoration of the historic railroad roundhouse for office space, the Missouri Department of Natural Resources' Discovery Center for children and EPA's new Science and Technology Center, a certified green building.

### **Habitat for Humanity, Wellston, MO**

Using a Brownfields Assessment Demonstration grant, the St. Louis County Economic Council assessed 16 properties in the small urban community of Wellston, facilitating the transfer of these 12 properties to Habitat for Humanity St. Louis. Habitat subsequently constructed 12 new homes on these properties.

**Region 7: Serving Iowa, Kansas, Missouri, Nebraska, and nine Tribal Nations.**



# Success in Funding Support

Region 8 approaches brownfields from a unique perspective, shaped by the special characteristics of this western area. Lacking the heavy industrial brownfields prevalent in other parts of the United States, Region 8 was one of the first areas in the country to focus on preservation of greenspace and beneficial reuse of open spaces such as mine-scarred lands.

As one of the least populated EPA regions, Region 8 faces particular economic challenges posed by the large number of primarily rural and tribal communities. Lacking the financial opportunities for brownfields redevelopment that are available in more populated parts of the country, these communities may have difficulty stimulating developer interest in their reuse plans.

As a result, tribes and rural communities must be creative in enticing developer interest and leveraging funds. Tribes, in particular, seek additional funding from other federal agencies, some state agencies, and other organizations that fund many existing tribal activities. Tribes are finding that these alternative sources of funding are easier to access *after* assessments have been completed, many funded with EPA grants.

A lack of funding for assessment activities does not have to be the end of the road for communities in Region 8. To address funding challenges, the Colorado Department of Public Health and the Environment, in conjunction with local government and EPA Region 8, developed the Colorado Brownfields Revolving Loan Fund, a model now used in other parts of the country. In 2002 and 2003, the fund provided more than \$2.5 million in low-interest loans to encourage redevelopment of brownfields.



## Highlights of Region 8 Successes

### Gateway District, Salt Lake City, Utah

An EPA Showcase Community, this 650-acre area just blocks from Main Street is being redeveloped into a mixed-use, mixed-income area. More than \$400 million has been leveraged for redevelopment through a focused effort by the city, state transportation officials, Union Pacific Railroad, and federal agencies.

### Turtle Mountain, Belcourt, North Dakota

A Brownfields Job Training and Development Demonstration Pilot, Turtle Mountain Community College has leveraged funding from federal sources to develop training programs for environmental jobs. Under the tribe's Brownfields Assessment Grant, resources and funding are being leveraged to redevelop a former state mental rehabilitation hospital into a tourism area and natural history park.

**Region 8: Serving Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, and 27 Tribal Nations.**





# Changing Lives through Job Training

Large cities, coastal areas, and federal facilities are among the features that pose challenges to brownfields redevelopment in Region 9. Nevada, for example, is full of secured federal facilities that the Region must work around. In Southern California, vast metropolitan areas struggle to find a bit of green.

The impacts of brownfields redevelopment can extend beyond assessment and redevelopment of a property to the lives of individuals in the community, as Region 9 has demonstrated through job training programs for disadvantaged residents. Locating Brownfields Job Training Pilots within or near a Brownfields Assessment Demonstration Pilot, the Region seeks to train residents in communities impacted by these abandoned properties. This training helps to guarantee that members of communities where brownfields redevelopment is underway have an opportunity to compete for assessment and cleanup jobs. For example, in Los Angeles, California, the Region 9 Job Training Pilot in the city's federal Empowerment Zone is training students in hazardous waste handling and lead and asbestos abatement, skills that will be applied directly to the cleanup of many properties in the zone.

After brownfields cleanup and redevelopment is complete in one area, trainees can seek employment in the environmental field, including cleanups using alternative or innovative technologies. This is exactly what has happened in Long Beach, California, where students have been trained in innovative environmental technologies to meet the rising demands for skilled environmental staff in the area.

**Region 9: Serving Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations.**



## Highlights of Region 9 Successes

### **Young Community Developers, Inc., San Francisco, California**

Historically an African-American neighborhood, the Bayview Hunters Point community has a 16 percent unemployment rate, and typical household incomes only two-thirds the city average. Young Community Developers used a Brownfields Job Training grant to train disadvantaged residents as environmental technicians, and created their own local remediation company in the process.

### **National Guard Armory, Las Vegas, Nevada**

Using the first Brownfields Cleanup Revolving Loan Fund loan, Las Vegas cleaned up soil contaminated with hazardous waste and petroleum hydrocarbons at the former National Guard Armory property. By redeveloping the property into a community center with space for a senior center, a small business incubator, and a cultural center, the city has created a place of pride and activity for local citizens.



# Where One Size Cannot Fit All, a Tailored Approach

Serving four states and 269 tribes, Region 10 must tailor its approach to the needs of its diverse communities. The Region is home to both cities leading the way in smart growth and small rural towns facing the shutdown of timber, fishing, and mining industries. The ecosystems of Region 10 are likewise diverse, from temperate rain forest to high desert, from tiny urban wetlands to vast expanses of tundra. With so much variation, the approach to cleanup and redevelopment must be appropriate to each community's unique mix of physical, economic, and social factors.

For each brownfields project, Region 10's role depends on the needs of the community. Targeted Brownfields Assessments are used where a community does not have the capacity to manage a grant, as well as with Alaska Native villages which are legally prohibited from competing for assessment and cleanup grants. State and tribal response program funding reflects both the variety of our partners' levels of capacity and means

to address the unique environmental cleanup issues. And some properties, with a combination of past users, overlapping current jurisdictions, and competing interests for reuse, require the Region to take a cross-programmatic approach.

Ecological issues also shape how assessment, cleanup and redevelopment are accomplished within Region 10. For example, sampling windows and techniques are often affected by the migration patterns, spawning/mating seasons, or habitat conditions of the incredible diversity of fish, birds and mammals within the Region (especially those covered by the Endangered Species Act). With thousands of miles of coastline, rivers, lakes, and estuaries, improving conditions at ports and along waterfronts is both important throughout the Region and complicated. In some specialized areas, such as dealing with contaminants in sediments, the Region is a leader within national working groups.

## Highlights of Region 10 Successes



### **Oregon Mills, Astoria, Oregon**

Working in partnership with EPA, the Oregon Department of Environmental Quality, ECOTRUST, and the community, the City of Astoria cleaned up the city's abandoned mill sites and transformed them into thriving waterfront properties. With a jump-start from a Brownfields Pilot grant, two properties on the site, located adjacent to downtown Astoria's historic area, are being developed into a public promenade, shops, and residential housing.

### **Environmental Extension Service, King County, Washington**

King County used an EPA grant to spark brownfields redevelopment, creating a home for the Environmental Extension Service, run by the non-profit Environmental Coalition of South Seattle. The Environmental Extension Service provides assistance in pollution prevention and direct, door-to-door assistance to manufacturing and industrial businesses in assessing and cleaning up contaminated land.

**Region 10: Serving Alaska, Idaho,  
Oregon, Washington, and Native Tribes.**



# Moving Forward

**"You'll see the possibilities of what can happen when people work together."**

*—President George W. Bush,  
at signing of Small Business Liability Relief and  
Brownfields Revitalization Act on January 11, 2002*

Since its inception in 1995, EPA's Brownfields Program has grown from a powerful concept into a dynamic, results-oriented program that has changed how people view and treat brownfields in their communities. The success of the program has inspired similar efforts in other parts of EPA, including the Resource Conservation and Recovery Act (RCRA) Brownfields Prevention Initiative, the USTfields Initiative, and EPA's new Land Revitalization Initiative, each of which is helping transform blighted areas throughout the country into safe, liveable communities.





In 2002, the President signed the Small Business Liability Relief and Brownfields Revitalization Act. The new Brownfields Law affirms and expands federal efforts to promote the cleanup and reuse of brownfields. The law underscores the value of stakeholder partnerships and the innovative approaches created and tested during the first nine years of EPA's Brownfields Program. It preserves the basic structure of the program, but expands its reach and capacity, providing new tools and new opportunities.

## ***The Challenges Ahead***

During 2003, EPA worked hard to develop policies, establish procedures, and create new programmatic structures to fully implement the programs newly authorized under the Brownfields Law. Attention now turns to the challenges that lie ahead, and the program changes needed to meet those challenges.

There still are hundreds of thousands of brownfields in almost every city, town, and rural area across the country that need to be put to better use. There is no single or simple way to carry out this daunting task. The sheer enormity of the problem far outstrips available federal resources, even under the new law. The Brownfields Program will build on the foundation laid in its early years to meet that challenge. The program will continue to provide financial support to local projects, assist state and tribal response programs, clarify liability obstacles, and address other issues in order to assess, clean up, and plan for the sustainable reuse of brownfields across the country.



*With the help of the Providence, Rhode Island Assessment Pilot, a former gravel pit is now a nine-hole golf course.*







*A job training class in Los Angeles, California provides local residents with environmental cleanup classroom and hands-on training.*

## ***EPA's Expanded Brownfields Program***

Building partnerships will remain a cornerstone of EPA's Brownfields Program. It is the key to leveraging enough resources to make a difference. EPA is working to find new and better ways to empower collaborative partnerships formed at every level of government, and with stakeholders from the public and private sectors. Towards this end, EPA will work with its federal partners on innovative partnership activities such as the "Portfields" project, sponsored by the National Oceanic and Atmospheric Administration, which focuses on the cleanup and redevelopment of brownfields in and around ports, harbors, and transportation hubs.

### **Brownfields Grants: Building on Local Momentum**

Competitive Brownfields Grants will continue to be the centerpiece of the EPA's Brownfields Program. By authorizing up to \$200 million per year, the Brownfields Law significantly expands the potential funding available for grants. It also opens the Brownfields Grants to new types of properties, including properties contaminated with petroleum, mine-scarred lands, and properties contaminated by the illegal production of controlled substances. In fact, the law requires that a quarter of the grants awarded address brownfields contaminated with petroleum.

The law provides for Brownfields Assessment, Revolving Loan Fund, and Job Training grants, building on the pilots awarded under the initial program. In addition, it authorizes EPA to award Cleanup Grants for the first time. This authority enables the Brownfields Program to provide direct funding to non-liable property owners for brownfields cleanup activities. The first round of grants competition under the new law has been tremendously successful; EPA received more grant proposals and awarded more brownfields grants than ever before. The 2003 grants include 117 Assessment Grants, 28 Revolving Loan Fund Grants, 69 Cleanup Grants, and 10 Job Training Grants totaling \$73.1 million. These include 102 grants specifically designated for properties with petroleum contamination.

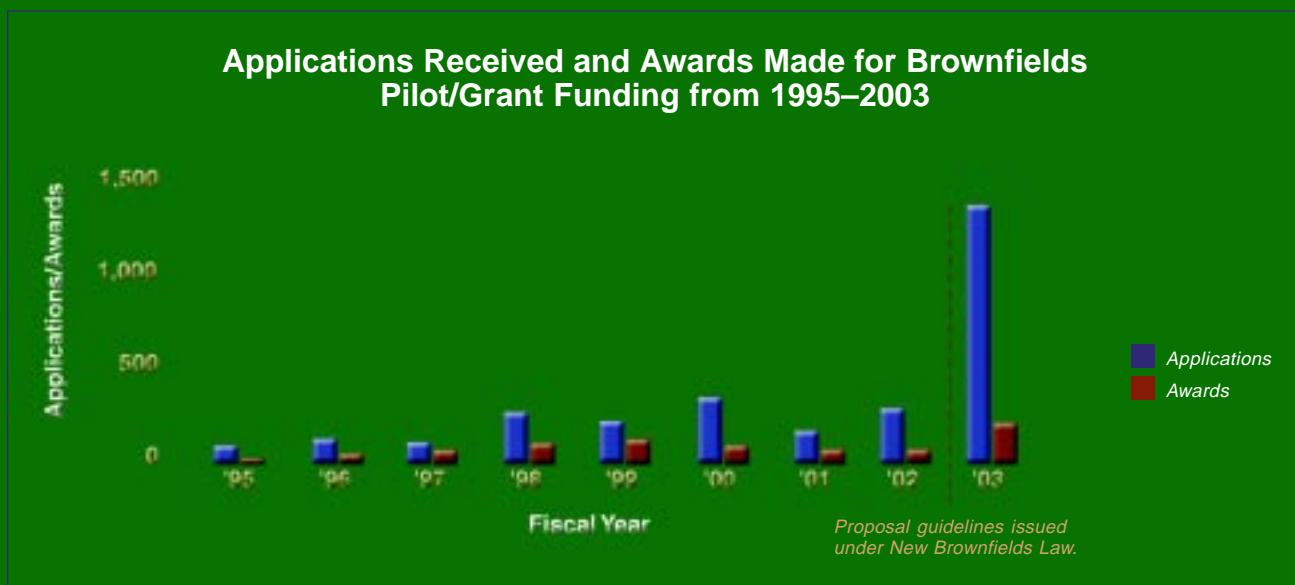


## Providing More Resources to States and Tribes

The Brownfields Law recognized the significant role state and tribal response programs play in cleaning up brownfields. The continued demand for brownfields cleanup and redevelopment in communities throughout the country, coupled with increasingly limited state and tribal resources, makes access to federal funding critical.

The law authorizes EPA to provide up to \$50 million in grants to states and tribes to establish or enhance their response programs. Generally, these response programs address the assessment, cleanup, and redevelopment of brownfields. In 2003, EPA distributed almost \$50 million among all 50 states, 31 tribes, the District of Columbia, and the Virgin Islands. This new funding will enable states and tribes to develop or enhance response program's infrastructure and capabilities. For some recipients, the funding will provide an opportunity to create new response programs to address contaminated properties. States and tribes also can use the new funding to capitalize a revolving fund for cleanup, purchase environmental insurance, or develop other insurance mechanisms to provide financing for cleanup activities. In addition, the funds can be used to establish or maintain the statutorily required public record and to oversee cleanups.

Providing financial assistance to states and tribes increases their capacity to meet the brownfields cleanup and redevelopment challenges. It will also help to ensure that properties are cleaned up safely, according to state and tribal standards.





*A former corner service station, the Arciform Building now houses three new local businesses serving Oregon's Tri-County Metropolitan Transit District.*

## Reducing Liability Barriers

The Brownfields Law provides a number of statutory landowner liability protections and is a major step forward in reducing uncertainty and concerns about potential cleanup liability for purchasers of contaminated brownfields. Uncertainty about cleanup liability has halted many brownfields redevelopment efforts.

The Brownfields Law's landowner liability provisions protect bona fide prospective purchasers and contiguous property owners, who have not caused or contributed to contamination at brownfields, from the potentially deal-breaking possibility of joint and several CERCLA liability. These property owners must, however, satisfy certain statutory requirements to qualify for the liability protection. The Agency has been active in issuing policies explaining how EPA intends to effectuate the landowner liability protections, in order to provide prospective purchasers and others more certainty and a better understanding of the issue.

In addition, EPA has established a federal advisory committee to develop and propose federal standards for conducting "all appropriate inquiry," one of the landowner liability protection requirements. The committee is developing a consensus proposal that reflects the combined expertise of EPA's public- and private-sector stakeholder partners.

The Brownfields Law also provides federal CERCLA liability protection for parties who conduct a cleanup of certain properties under a state response program designed specifically for protection of human health and the environment. Prior to this change, a state could provide state liability protection for brownfields cleaned up under its laws, but a state could not provide federal liability protection. EPA quickly issued guidance, explaining which properties currently in the CERCLA system will be eligible for federal liability protection. While the new provision offers protection from the specter of federal CERCLA liability at such properties, it also preserves the federal safety net by specifying situations in which EPA can revisit a cleanup.





*Residents of Albuquerque, New Mexico receive environmental cleanup training with funds from the Bernalillo County Environmental Health Department Job Training Pilot.*



## Extending the Brownfields Program's Reach

The expanded definition of brownfields under the new law encompasses all “real property,” including residential property, mine-scarred lands, and certain petroleum-contaminated and controlled substance-contaminated sites. Low levels of residual contamination may remain on these different brownfield types after cleanup, and safeguards are necessary to prevent future property uses and activities that would expose people to contamination at unsafe levels. Institutional controls, legal and administrative mechanisms limiting the possible future uses of a property, are used as protections against exposure to residual contamination on brownfields. EPA is working with local governments, states, and tribes on a national effort to create a network of linked systems that can be used with confidence to track institutional controls and requirements for long-term cleanups. Effective use of institutional controls will help ensure that the expanded universe of brownfields remain safe after cleanup by linking the planned future use of the property to the level and method of cleanup.



*The Albuquerque, New Mexico Assessment Pilot facilitated the redevelopment of a historic high school into a loft-style apartment complex housing numerous local families. The building and landscaping materials, along with the proximity to downtown and public transportation, made “The Lofts” an award-winning green building. (Photos by Paul Kohlman.)*



## Promoting Sustainability

The Brownfields Program will continue to take on the challenge of ensuring sustainability of brownfields redevelopment. The new Green Buildings on Brownfields Initiative, launched in 2002, encourages the use of “green” building techniques at brownfields. “Green” buildings conserve energy, water, and materials, and create healthy indoor and outdoor environments. Under this new initiative, EPA is providing expert-consultant services to help pilot projects in eight states incorporate “green” building concepts and technologies into their brownfields redevelopment efforts.

EPA’s recently announced Land Revitalization Initiative complements the Brownfields Program. It applies the central tenet of the EPA’s Brownfields Program—that environmental cleanup and reuse are mutually supportive goals—to all of EPA’s hazardous waste cleanup programs. Like the Brownfields Program, the Land Revitalization Initiative recognizes that assessing and cleaning up contaminated properties and putting them to productive use can help reinvigorate communities, preserve greenspace, and prevent sprawl.



*Artist's rendering of the redeveloped Laclede Power Plant building which will serve as gateway to the Katy Trail, a greenbuilding project including a pedestrian/bike trail running through Missouri and the St. Louis riverfront.*



## Conclusion

What began in 1995 as a bold experiment has grown into a major national program. EPA's Brownfields Program has galvanized local creativity, state ingenuity, and free enterprise to successfully revitalize blighted properties and spark beneficial development in depressed areas. The Brownfields Program has revolutionized the way people perceive and manage potentially contaminated properties. As a result, the program has helped to replace hopelessness with community empowerment and economic revitalization, and has enhanced the quality of life for residents of many disadvantaged neighborhoods.

The momentum generated by the program is leaving an enduring legacy. Environmental assessments conducted through the pilots, the removal of federal liability obstacles, and the emergence of environmental insurance have eliminated uncertainties about thousands of properties, and resulted in the investment of billions of dollars in cleanup and redevelopment.

Working together, the Brownfields Program and its partners have accomplished a great deal. Clearly, there is still much to do. With enactment of the new Brownfields Law, EPA's Brownfields Program enters a new era. The law provides a Congressional mandate, increases potential funding, and creates many opportunities for establishing policies that will advance brownfields reuse nationwide. EPA looks forward to working with its many partners to continue the momentum generated by past success.



*Facilitated by a cleanup loan from the Colorado Coalition BCRLF Pilot, the Colorado Rockies baseball team has a new field to call home.*

*Community members and officials participated in the groundbreaking ceremony at the future site of the Addiction Science Center in Trenton, New Jersey.*



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- \* The information presented was taken from the U.S. EPA Brownfields Management System (BMS). The BMS database contains the accomplishments reported by Pilot recipients under the Brownfields Program. Leveraged accomplishments were not directly funded by EPA, but were reported to occur as a result of EPA Pilot funding.







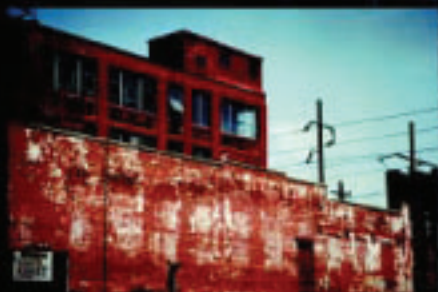
This CD-ROM offers additional information that will get you better acquainted with EPA's Brownfields Program. The CD has a structure similar to that of this report, and is organized by the same four primary sections—*Overview, Catalyzing Change, Revitalizing Communities, and Moving Forward*. Each section supplements the report by providing more detailed information, printable documents, and links to web sites. As with the report, the information contained in the CD represents temporal snapshots of EPA's Brownfields Program activities and accomplishments. More current information can be obtained by visiting EPA's Brownfields web site, [www.epa.gov/brownfields](http://www.epa.gov/brownfields).



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