

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.^{1,2,3}

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.⁴





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.⁵ 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)

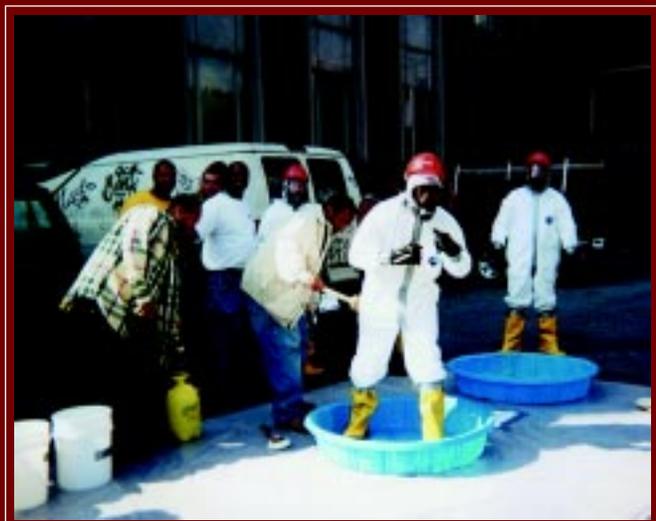
- Provide funding to carry out cleanup activities at brownfields.
- Grantee must own the properties for which it is requesting funding.

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.

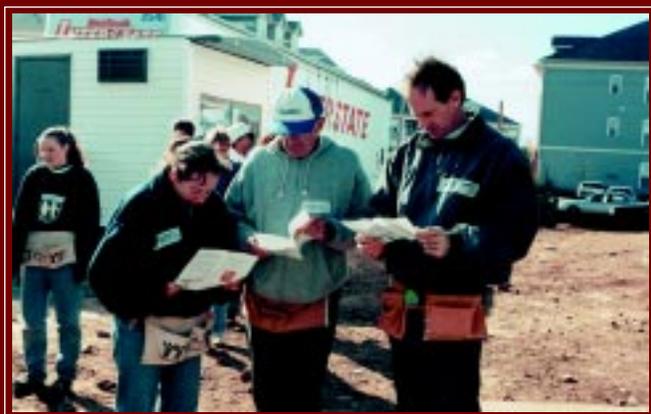


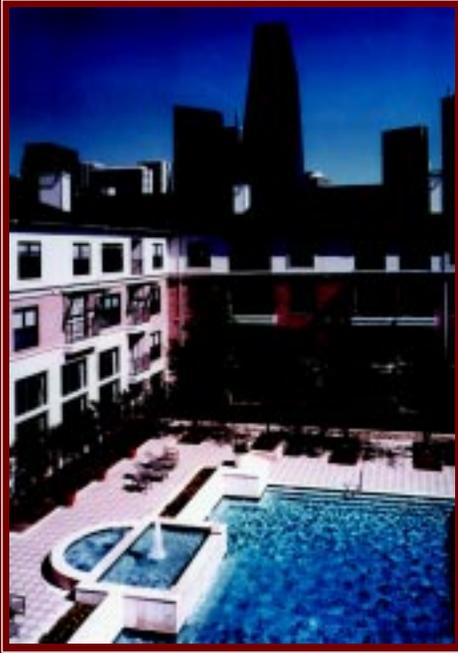
Creating Partnerships

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.



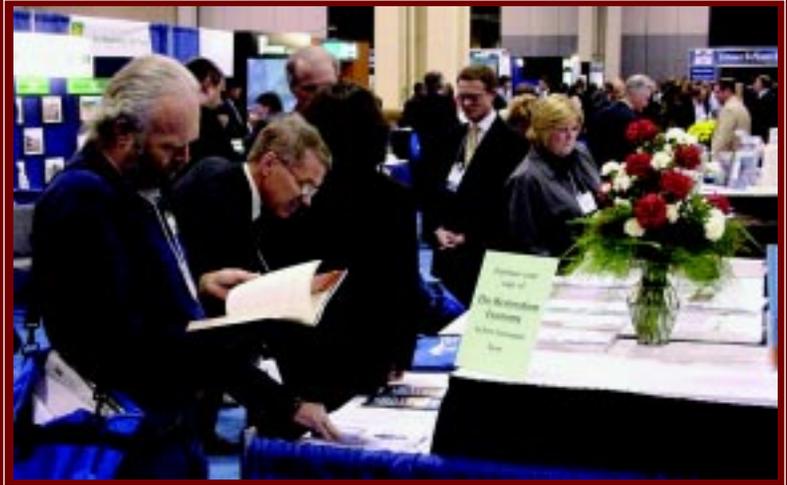
Construction activities are underway on the former Jefferson North End property in Dallas, Texas.

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.

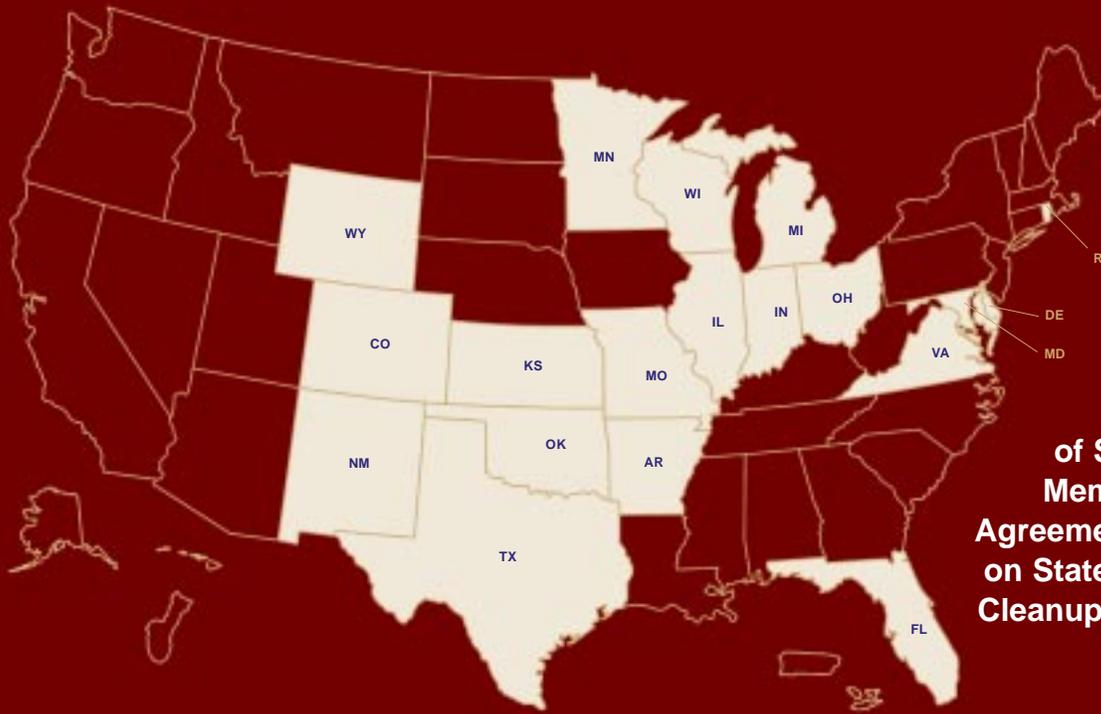


Participants at the Brownfields 2002 Annual Conference held in Charlotte, North Carolina. (Photo Courtesy of ICMA.)

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





U.S. Map of States with Memoranda of Agreement (MOAs) on State Voluntary Cleanup Programs (VCPs)

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.



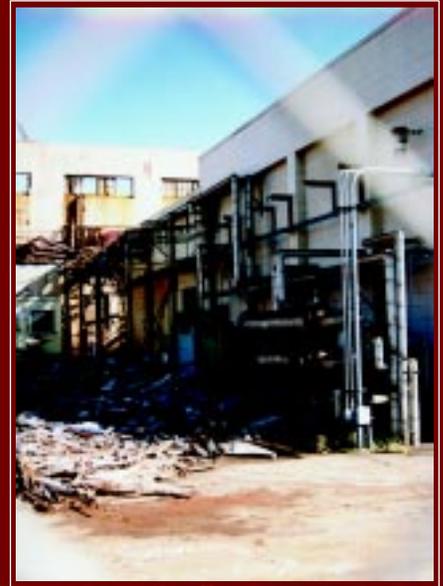
Targeted Brownfields Assessments were completed at over 900 properties.



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.