brownfields revitalization in New England: A Look Back 1994-2006

EPA United States Environmental Protection Agency New England

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1994 1995 1996 1997 1998 1999 2

www.epa.gov/ne/brownfields

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On the Cover

photo 1 of 3:
Robertson on the River, Taunton, MA

photo 2 of 3:
Waypoint Visitors Center, Bellows Falls, VT

photo 3 of 3:
Sid Wainer & Son, New Bedford, MA

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Greeting from EPA New England

This year marks the 12th anniversary of EPA's Brownfields Program, and we are pleased to present this report, *Brownfields Revitalization in New England: A Look Back, 1994-2006.*

Started as an agency initiative in 1994, EPA's Brownfields Program has evolved into a highly successful collaborative effort among a wide range of federal, state and local partners, helping communities assess contamination and determine the costs of cleaning up sites for redevelopment. This report highlights some of New England's most successful brownfields redevelopment efforts, beginning with the two original pilot projects in Boston, Mass., and Bridgeport, Conn., and featuring numerous revitalized sites that had previously been abandoned and stigmatized by the possibility of environmental contamination.

New England is rich in history and in showcase redevelopment projects that have improved the quality of life across this region. As we move into another decade of brownfields redevelopment, we celebrate the revolutionary progress produced by many urban and nonprofit groups to improve the quality of life and provide job training across the region.

You'll read about the conversion of a former contaminated rail yard into a popular visitors' center in rural Vermont, which includes a replica of a historic bridge that crossed the Connecticut River. You will learn about how contaminated property in an economically distressed neighborhood of Providence, R.I., is being cleaned up and redeveloped into two special needs schools and a community center. And you will follow how the quality of life is improving for senior citizens in

Nashua, N.H., after a major asbestos assessment and cleanup allowed the expansion of their center to include housing, a billiards room, library, craft area, ballroom and gym.

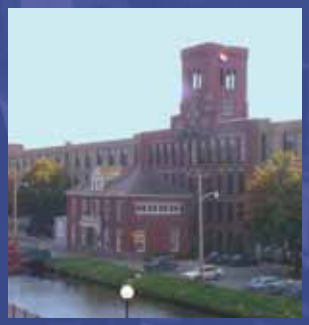
Since 1994, EPA has invested over $130 million in hundreds of New England communities, states, agencies and nonprofit groups. In 2006, EPA's Brownfields Program awarded 51 grants in New England totaling $11.4 million. Additionally, $283,528 in Job Training Grants were awarded to two nonprofit organizations in 2006, bringing the total in Job Training Grants to $3.7 million. These investments have leveraged another $524.9 million in funding from government and private sources for cleanup and redevelopment, while also leveraging thousands of new jobs. EPA estimates that every acre of reclaimed brownfields saves 4.5 acres of green space and every green space created, on average, doubles the value of surrounding properties.

EPA is proud of our partnerships with local communities, government agencies and private investors that have helped transform brownfields sites in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont into schools, housing, playing fields, new businesses and green space. We hope you enjoy this report; for more information on the Brownfields Program in New England, please visit our website at **www.epa.gov/ne/brownfields**.

Sincerely,

Robert W. Varney
Regional Administrator

introduction



New partnerships

have emerged among communities, government agencies and private investors to restore and reuse thousands of contaminated New England properties.

Introduction

Contaminated lands can rob a community of its economic and social vitality and potential. New England's long and rich industrial history left behind a legacy of old and oftentimes abandoned properties in cities and towns.

"The Brownfields Program is a top environmental priority for the Administrator. EPA is working with its state, Tribal and local partners to meet its objective to sustain, clean up and restore contaminated properties and abandoned sites."

-- EPA Administrator Stephen L. Johnson

Thousands of New England properties are abandoned because owners and developers fear environmental contamination and the associated liability. Called brownfields, these properties are often unused while development consumes valuable open space. New partnerships have emerged among communities, government agencies and private investors to restore and reuse these properties.

Brownfields grants are the foundation of EPA's Brownfields Program. These grants fund environmental assessments, cleanups and job training activities.

The Brownfields Assessment Grant Program provides funding for inventories, planning, environmental assessments and community outreach. Local, state and tribal governments are eligible to apply for funding. Applicants may apply community-wide for $200,000 for hazardous substances and $200,000 for petroleum assessments. Site-specific applications can also be made for up to $350,000.

The Brownfields Cleanup Revolving Loan Fund Grant Program distributes funding to capitalize loans that are used to clean up brownfields. Local, state and tribal governments are eligible to apply for funds to capitalize a revolving loan fund and provide subgrants to conduct cleanup activities. Up to $1 million is available per applicant. Repaid loan funds can be used to make additional cleanup loans.

The Brownfields Cleanup Grant Program funds cleanup activities by both municipalities and nonprofit organizations. Grants of up to $200,000 per site are available. Applicants must own the sites.

The Brownfields Job Training Grant Program provides funds for environmental training programs for residents of communities with brownfields. Colleges, universities, nonprofit job training centers, local government agencies and tribes are eligible for funding of up to $200,000.

Brownfields Program
Growth

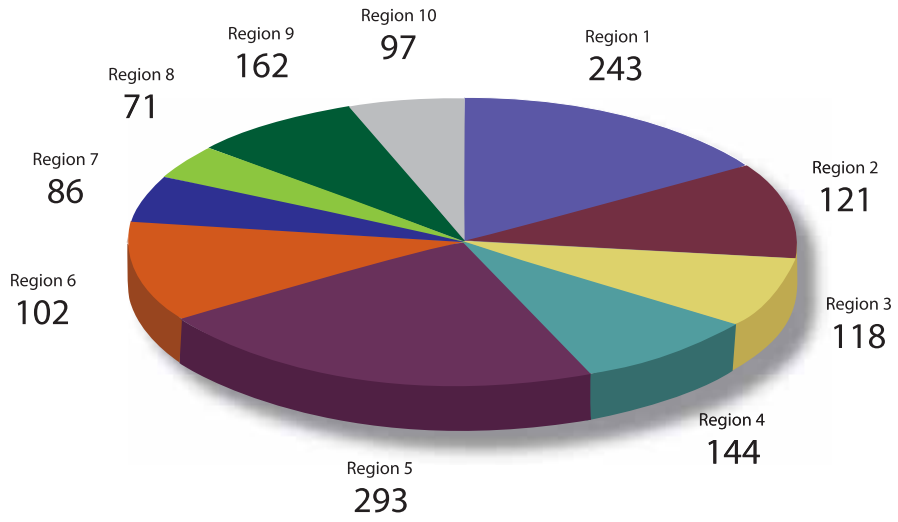
The EPA New England Brownfields Program has experienced rapid growth over the course of 12 years. The program began with a single $200,000 grant awarded to the city of Bridgeport, Conn., in 1994 as part of EPA's Brownfields Pilot Initiative, and has since flourished into a program that supports more than 240 active brownfields grants. The EPA New England Brownfields Program has 950 properties with its grant funding and more than 35 grant recipients have received at least two brownfields grants in New England.

A critical component to the success of EPA New England's Brownfields Program is its ability to engage grant recipients on a personal level. EPA targets outreach to specific groups of stakeholders, such as small towns, rural communities and nonprofit organizations, since these groups can be unfamiliar with federal programs.

"For a federal agency, EPA is so client-focused. Our success is because they're really there to help us."

– Susan McMahon
Windham Regional Commission

Total Number of Grants Awarded by EPA Region (1994-2006)



EPA has worked in small towns where local officials believe they only have one brownfield. But after EPA New England staff conducts some outreach and the local officials understand the program better, the town will identify many more brownfields in their community.

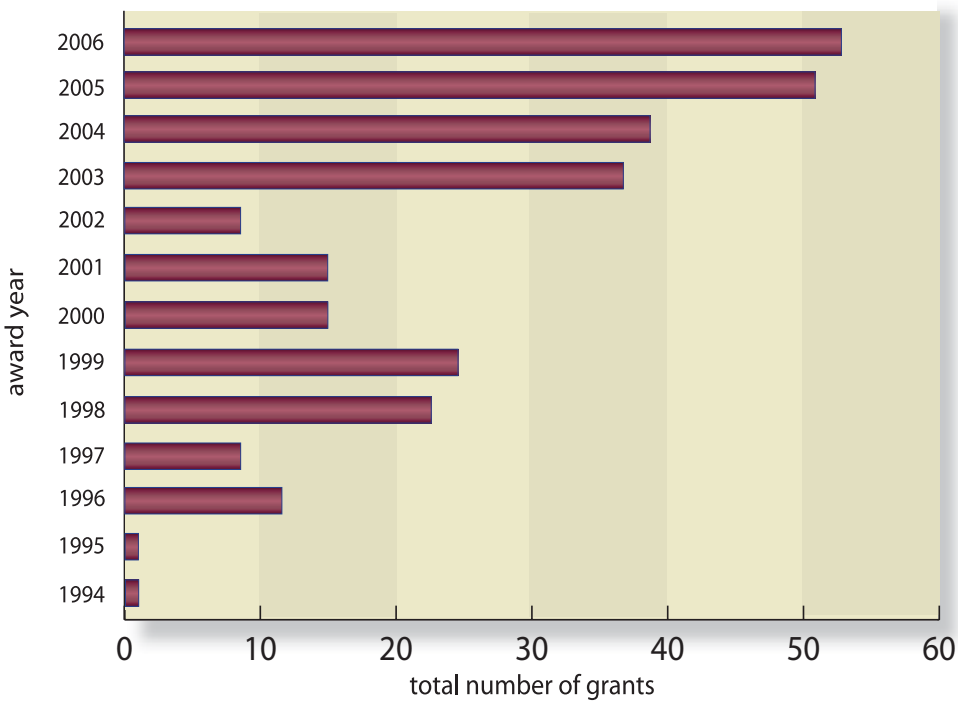
EPA provides forums, such as workshops, conferences and trainings, to share information. Recipients and potential grantees come to hear about funding, new technologies and other lessons learned. This collective learning can be as valuable as any funding.

"For a federal agency, EPA is so client-focused," said Susan McMahon, of the Windham Regional Commission in Vermont. "Our success is because they're really there to help us."

Because of extensive outreach efforts and increased resources, the EPA's national Brownfields Program has grown from a pilot initiative into an established program. This growth and success is mirrored in the EPA New England communities which have received among the highest proportion of brownfields grants in the country. Additionally, the region has received the most job training grants. Each year, more and more entities apply for Brownfields Program funding, and EPA is committed to assisting everyone, from the largest cities to the smallest towns of New England, to recognize and realize their redevelopment visions.

The ability to engage grant recipients on a personal level is a critical component to the success of EPA New England's Brownfields Program.

Total Number of Grants Awarded in EPA Region 1 (1994-2006)



1994-2006

Timeline
EPA New England Brownfields Program (1994-2006)

1994 1995 1996 1997 1998 1999

1994
National Brownfields Program begins as an initiative. In New England, Bridgeport, Conn., receives a demonstration pilot award of $200,000.

1995
EPA formally launches the Brownfields Program. Boston, Mass., is chosen for an assessment pilot.

1996
EPA and the International City / County Management Association (ICMA) jointly sponsor the first national Brownfields Conference in Pittsburgh, Penn., with over 1000 participants.

1997
In its first few years, New England's Brownfields Program leverages $28 million in follow-up assessment, cleanup and redevelopment.

1998
EPA announces 16 Showcase Communities, including three in New England: Lowell, Mass.; Stamford, Conn.; and Providence, R.I.

1999
The city of Stamford, Conn., receives one of the first Brownfields Cleanup Revolving Loan Fund Program awards in the country.

2000

EPA makes an additional 12 Showcase Community awards, including two in New England: one to the city of New Bedford, Mass., and one to the Mystic Valley Development Commission in Massachusetts.

2003

The EPA and other federal partners announce three Portfields Demonstration Pilot Ports nationwide, including one in New Bedford, Mass.

2004

The total value of Brownfields Grants awarded in New England since 1994 is now $91 million, out of $700 million nationwide.

2006

The annual nationwide Brownfields 2006 conference is hosted by New England at the Boston Convention and Exhibition Center.

2000 2001 2002 2003 2004 2005 2006

2001

To date, the Revolving Loan Fund has supported 128 grantees nationwide, of which 26 are in New England.

2002

President George W. Bush signs the Small Business Liability Relief and Brownfields Revitalization Act, commonly called the Brownfields Law, which provides funding for cleanup and expands eligibility to nonprofit groups and to sites with petroleum contamination.

2003

EPA awards the first cleanup grants, 10 of which are in New England.

2005

The total value of Job Training Grants awarded in New England reaches $3.5 million, with 550 students graduated.

2006

After a decade of success, the value of EPA Brownfields Grants awarded in New England totals over $130 million, and it is estimated that an additional $524.9 million was leveraged to support further assessment, cleanup and redevelopment.

brownfields history

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Even though

New England is about the size of Washington state, the area has received the second largest number of brownfields grants compared to the other nine EPA regions.

History of EPA New England's Brownfields Program

"EPA remains committed to protecting the public's health and the environment, while encouraging the cleanup and reuse of contaminated properties throughout New England."

-- EPA New England Administrator Robert W. Varney

Since its inception, the EPA National Brownfields Program has spent more than $700 million and provided comprehensive technical assistance to help states, tribes, communities and other stakeholders work together to redevelop brownfields sites.

The Brownfields Program was launched in 1994, and in that year a $200,000 Assessment Demonstration Pilot Grant was awarded to the City of Bridgeport, Conn. A second pilot was awarded to the city of Boston, Mass., in 1995. Since then, EPA has awarded more than $130 million in brownfields grants to communities of New England.

Even though New England is about the size of Washington state, the area has received the second largest number of brownfields grants compared to the other nine EPA regions. A long industrial legacy has left countless factories with unknown contamination scattered throughout the area. This is the type of brownfields properties that is ripe for redevelopment, often located near waterfronts or in the heart of downtown areas. Redevelopment projects in New England span a wide range of properties including rural, industrial, waterfront and former mill sites.

Since 1994, the EPA New England Brownfields Program has proven that cleaning properties for reuse is an effective way of meeting communities' needs and improving the environment and overall quality of life. As the program grows, so does the variety of types of grant recipients such as regional planning commissions, councils of government, nonprofits and universities.

New stadium, home to the Bridgeport Bluefish, in Bridgeport, CT

Original Pilot Project
Bridgeport, CT

The city of Bridgeport, Conn., is the largest and one of the most distressed cities in Connecticut. More than 60 percent of city residents are minorities and the unemployment rate is almost twice that of neighboring communities. Bridgeport has lost much of its manufacturing base together with many jobs. Businesses have also relocated to the suburbs of Bridgeport, leaving behind several hundred acres of formerly prime industrial land in the city that lie abandoned and underutilized.

To help revitalize Bridgeport, EPA awarded the city a $200,000 Brownfields Assessment Demonstration Pilot Grant in 1994, which was the first in the state. The grant was used to create an inventory of brownfields sites in the city. Over the next 10 years, Bridgeport received $1 million in Brownfields Assessment Grants, more than $2.15 million in Brownfields Cleanup Revolving Loan Fund Grants, and $800,000 in Brownfields Cleanup Grants. Bridgeport also benefited from $398,500 in Brownfields Job Training Grants. Additionally, more than $71 million and 500 jobs have been leveraged.

Two of the most notable redevelopment efforts in Bridgeport are Went Field Park and the Ballpark at Harbor Yard.

Went Field Park

Two adjacent commercial properties in Bridgeport have been cleaned up and redeveloped to expand Went Field Park. The new 10-acre multi-use park has improved recreational facilities, open space, and educational opportunities. The park is now available for use as a safe space by neighborhood residents and two local schools that previously lacked recreational and athletic facilities.

The city utilized its EPA Assessment Demonstration Pilot Grant funds to conduct environmental site assessments on the Exmet site, the location of a former metal extrusion company, and the Swan Engraving site, the location of a former printing company. EPA also conducted a $75,000 Targeted Brownfields Assessment on the Swan Engraving site. The assessments identified the presence of low-level solvents in ground water, which are still being monitored. As part of the applied study component of the Brownfields Job Training Program, local students were trained in ground water monitoring and data management.

As the largest community-based project in the city and one of the largest in the country, issues of crime, lack of funding, and environmental stigma were all overcome through meaningful involvement in decision-making. Bridgeport was also one of the first cities in the nation to use stakeholder involvement together with the redevelopment process to revitalize whole neighborhoods rather than parcels of land.

Bridgeport was among the nation's first cities to use stakeholder involvement together with the redevelopment process to revitalize whole neighborhoods rather than parcels of land.

Ballpark at Harbor Yard

A highly-visible, abandoned, run-down property was redeveloped into a new baseball stadium for the Bridgeport Bluefish, an Atlantic League Baseball team.

In 1990, Bridgeport was one of the poorest, yet most highly-taxed, cities in the nation. Areas of the city were experiencing economic decay, as evidenced at the former Jenkins Valve site, located directly at Bridgeport's main gateway. Visitors arriving via the city's ferry, in Amtrak and Metro-North Railroad cars at Bridgeport's train terminal and in vehicles buzzing overhead on the Interstate 95 overpass, were all subjected to a clear view of the abandoned, run-down property.

Using a portion of the $200,000 EPA Brownfields Pilot Program Grant provided to the city in 1994, an assessment was conducted on the property. The Zurich Re Corporation provided $11 million to clean up and redevelop the site. Additionally, the city provided $1 million and the state provided $2 million.

This long-idle property was reopened as a 5,500-seat ballpark in 1998. The ballpark project created 361 jobs, 68 of which are permanent. The success of the ballpark spurred interest in further redevelopment of the area, including the adjacent Arena at Harbor Yard, home of hockey and entertainment events. Collaboration and partnerships were essential to Bridgeport's cleanup and redevelopment efforts progressing well beyond the assessment and planning stages supported by EPA's initial $200,000 investment. Now greeted by a view of the ballpark, Bridgeport visitors can enjoy the success of the city's efforts.

Original Pilot Project
Boston, MA

Boston, Mass., is New England's economic hub and its largest city. The city has a long industrial history, but many manufacturing industries have been phased out of the city in favor of technology and other businesses. As a result, parts of Boston have been left littered with abandoned and vacant properties with environmental problems.

EPA began to help Boston address these properties in August 1995 by awarding a $200,000 Brownfields Demonstration Assessment Pilot. Since that first award, Boston has been the recipient of more than $1.2 million in Brownfields Assessment Grants, $1 million in Brownfields Cleanup Revolving Loan Fund Grants and a $200,000 Brownfields Cleanup Grant. Additionally, more than $1.1 million have been leveraged and approximately 130 brownfields job training participants have obtained employment.

EPA Brownfields Job Training Grants have supported approximately 130 graduates within Boston.

Two of the most notable projects in Boston are the restoration of the Belle Isle Coastal Preserve and the redevelopment of contaminated property at 505 Tremont Street into a mixed-use residential and commercial building.

Belle Isle Coastal Preserve

A former salt marsh that had undergone dumping and filling associated with past commercial and industrial uses has been cleaned and restored, and is available to East Boston residents as open space for passive recreation.

The city-owned 1.6-acre parcel, an extension of the Belle Isle Marsh Reservation, is the location of the former Belle Isle Fish Company. A $200,000 EPA Brownfields Cleanup Grant awarded to the Boston Redevelopment Authority (BRA) and other city financial assistance were used to remove 11,300 tons of contaminated soil and to restore tidal flow and native salt marsh vegetation.

The restored marsh links the northern and southern sections of the adjacent state-owned Belle Isle Marsh Reservation, which preserves 152 acres of Boston's 241-acre last remaining salt marsh. The reservation exemplifies the type of wetlands that once lined the Massachusetts Bay shore. Centuries of flourishing plant life have made the marsh fertile. Its protected waters are nurseries for fish and shellfish and are critical habitat to many salt marsh plants and wildlife rare to the metropolitan area.

505 Tremont Street

Successful partnerships led the redevelopment of an abandoned brownfields industrial property into an eight-story mixed-use building with condominiums, retail and restaurant space, two theaters and parking.

Located in Boston's South End, the 50,000

Completed redevelopment at 505 Tremont Street in Boston, MA

square-foot property had a variety of past uses including automotive repair and filling stations, an Odd Fellows Hall and a hotel destroyed by fire in the 1960s. Contaminants found at the property included volatile organic compounds, semivolatile organic compounds, total petroleum hydrocarbons, mercury, lead and a localized pocket of light non-aqueous phase liquid. The Boston Economic Development and Industrial Corporation awarded a $475,000 Brownfields Cleanup Revolving Loan Fund loan to the BRA for cleanup. The developer contributed approximately $2 million and the BRA provided an additional $525,000 towards cleanup costs.

Cleanup and construction began in 2002 and the property was redeveloped into a mixed-use complex that opened in 2004. Uses include 20,000 square feet of retail and restaurant space on the street level, new theaters for use by the adjacent Boston Center for the Arts and the Huntington Theater, 103 condominiums on the upper floors and a below-grade 350-car parking garage.

showcase communities

Communities

were selected to receive Showcase Community designations following national competitions. These communities demonstrate successful brownfields partnerships, providing national visibility for a community's brownfields efforts.

Showcase Communities

Brownfields Showcase Communities are models that demonstrate the benefits of focused, coordinated attention on brownfields.

"The Brownfields Showcase Community designation was important to the City of Stamford as it encouraged neighborhood residents to become better informed and truly participatory in meaningful discussions about remediation, restoration and the future of their community."

-- Sandra L. Dennies
Grants and Governmental Relations Director
Stamford, CT

Showcase Communities have three main goals: to promote environmental protection, economic redevelopment and community revitalization through the assessment, cleanup and sustainable reuse of brownfields; to link federal, state, local and non-governmental action supporting community efforts to restore and reuse brownfields; and to develop national models demonstrating the positive results of public and private collaboration addressing brownfields challenges.

Communities were selected to receive Showcase Community designations following national competitions in 1998 and 2000. EPA provided each Showcase Community with a $200,000 Assessment Pilot and assigned an EPA employee to work fulltime in the designated community for two years. For New Bedford, Mass., the U.S. National Oceanic and Atmospheric Administration provided the employee for the community.

Showcase Community
Lowell, MA

One of New England's five Showcase Communities is Lowell, Mass. Some of the city's most successful redevelopment efforts include the Paul Tsongas Arena, the LeLacheur Park and the Ayer Lofts.

Paul Tsongas Arena

A former industrial property has been cleaned up and redeveloped into the Paul Tsongas Arena.

This site, which contained contaminants such as chlorinated solvents, polyaromatic hydrocarbons, asbestos and heavy metals since the 1800s, now hosts the Paul Tsongas Arena. The city of Lowell utilized a portion of the EPA Brownfields Assessment Demonstration Pilot Grant to identify the extent of contamination on the site.

The 7,800-seat arena, named after U.S. Senator Paul Tsongas, opened in 1998. Professional and college hockey games, concerts, family shows, sporting events, trade shows and conferences are held in the arena throughout the year. The arena also maintains park-like grounds with a 3,500 person capacity for outdoor concerts, festivals and special events. In addition, continuing efforts resulted in a wrap-around walk called Riverwalk.

LeLacheur Park

A former junkyard and ash dump site in Lowell has been cleaned up and redeveloped into the 4,710-seat LeLacheur Park stadium.

Lowell used part of the EPA Brownfields Assessment Demonstration Pilot Grant to identify the extent of contamination on the site. The redevelopment of the site was achieved through collaboration among local, state and federal government agencies. The stadium opened in 1998 and is now home to a local football team and the Lowell Spinners, the Red Sox minor league baseball team. The ballpark was named after retired State Representative Edward A. LeLacheur.

Ayer Lofts

Two adjacent former commercial and industrial sites in Lowell have been transformed into loft-style artist units, a café and a gallery, which have significantly increased the city's tax revenue.

In 1996, the city of Lowell used part of its Brownfields Assessment Demonstration Pilot to conduct a Phase I environmental site assessment (ESA) at two adjacent brownfields sites. The two sites served as a variety of commercial and industrial establishments between the 1840s and 1995. The city obtained ownership of both properties in tax title proceedings.

The Ayer Lofts site had many unusual former uses including: a grammar school; offices; a cosmetic manufacturer; a steam and gas works operation; a reed and harness manufacturer; a commercial printing establishment; a brass foundry; a plumbing business and a furniture company.

The Paul Tsongas Arena in Lowell, MA

The 11,655-square foot property with two large brick buildings had been abandoned for extended periods of time. The results of the ESA showed that limited environmental cleanup was needed, including removing friable asbestos-containing building materials, four storage drums containing oil lubricant and carbon tetrachloride, and vermin and scat from the sites.

A Boston firm invested in the development of Ayer Lofts, a complex that includes 49 loft-style artist units, as well as a 3,100-square foot café and gallery. The project increased the city's tax revenue by $300,000—$400,000 per year as a result of the redevelopment, which is valued at $9 million. The lofts, retail businesses and gallery have been in use since 2000.

Showcase Community
Stamford, CT

The city of Stamford, Conn., is one of New England's five Showcase Communities, and one of its most successful redevelopment projects is the Harley Davidson/Buell Dealership of Stamford.

Two former abandoned properties that were contaminated by previous industrial uses, including plastics manufacturing and foundry operations, have been cleaned up and redeveloped into the Harley Davidson/Buell Dealership of Stamford.

Located in the South End neighborhood, the Pacific Street properties were the former location of two dilapidated brick buildings, which housed a variety of commercial operations since the late 1890s. The Blues Brothers, LLC, purchased the properties and three contiguous abandoned lots with the goal of building a motorcycle shop, maintenance facility and parking lot.

A total of $160,000 was borrowed from Stamford's Brownfields Cleanup Revolving Loan Fund (BCRLF) in 1999 to assist with cleanup costs. This $1.5 million redevelopment project was the third project in the nation to receive BCRLF assistance.

Approximately 3,000 tons of soil contaminated with chromium, lead, cadmium, petroleum hydrocarbons, polychlorinated biphenyls and arsenic were removed by October 1999. The site was cleaned to residential standards to maximize future use options, and one of the existing brick buildings was renovated for use as a motorcycle showroom and office.

In late 2000, the community celebrated the grand opening of the dealership in Stamford. The project leveraged seven to 10 new jobs for community residents and demonstrated the effective use of strong partnerships formed between local, state and federal entities.

Stamford's brownfields redevelopment opportunities continue, bolstered in part by the 2005 award of two additional EPA Brownfields Cleanup Grants totaling $225,000 for downtown properties on Dock Street and Manhattan Street.

EPA Brownfields assistance in Stamford has helped leverage seven to 10 new jobs for community residents.

Stamford, CT

1998
Recognized as an EPA Brownfields Showcase Community

1998
Awarded a $200,000 Assessment Pilot Grant

1999
Awarded a $500,000 Brownfields Cleanup Revolving Loan Fund

1999
Recognized as making the third EPA brownfields revolving loan in the nation

2005
Awarded $225,500 in Brownfields Cleanup Grants

Harley Davidson dealership, Stamford, CT

Interior view of new greenhouses, Sid Wainer & Son, New Bedford, MA

Showcase Community
New Bedford, MA

New Bedford, Mass., is one of New England's five Showcase Communities. Two of its most successful redevelopment efforts include the South Terminal Marine Industrial Park, a former textile mill that has been redeveloped into a new seafood industrial center, and the Sid Wainer & Son Co. Greenhouse, a commercial greenhouse that flourishes in the center of an inner-city neighborhood.

South Terminal Marine Industrial Park

The well-known 25.5-acre Standard Times Field is adjacent to the Acushnet River in New Bedford and was previously occupied by a textile mill from the 1880s until the 1930s. After mill operations ceased, the buildings were demolished by 1935 and the site remained vacant for more than 60 years.

Due to the site's proximity to New Bedford's South Terminal, an area with many fish processing facilities, it was considered prime industrial land. The New Bedford City Council voted to extend the Working Waterfront Overlay District to include the site and encouraged development to accommodate expansion of the seafood processing industry in the city.

In 1998, the New Bedford Redevelopment Authority acquired the site from a bank that had foreclosed on the prior owner and targeted it for redevelopment as a 10-lot industrial subdivision. City officials hoped to assess the property to provide environmental information to prospective buyers.

EPA conducted a Targeted Brownfields Assessment (TBA) of the entire site in 1999 that revealed some localized contamination. This included the presence of a large underground storage tank and surrounding soils contaminated with petroleum hydrocarbons, a layer of coal one to two feet below the soil surface and some asbestos from building debris. Soil throughout the site contained hydrocarbons, polyaromatic hydrocarbons, pesticides, polychlorinated biphenyls (PCBs) and metals. Additionally, elevated levels of PCBs were found in the groundwater on one lot and heavy metals on a few lots.

Following the TBA, the city used additional EPA Brownfields Assessment Pilot Grant funds to conduct Phase II assessments of the separate lots, making the properties more marketable. The city and the New Bedford Redevelopment Authority aggressively marketed the parcels at the site and by 2004, half of the 10 lots had new construction, with four of those facilities completed and sold at an average cost of $125,000 per acre.

With about $5 million in investment by the city and from the Public Works Economic Development Program and the Community Development Action Grant Program, $10 million in private investment have been leveraged, adding 60

New Bedford's fish processing industry will receive a projected addition of 150 jobs and nearly $100 million dollars after completion of the South Terminal Maine Industrial Park project.

new jobs and nearly $1 million to the tax rolls. It is projected that after development is completed, there will be an additional 150 jobs and nearly $100 million dollars added to the fish processing industry in New Bedford.

Sid Wainer & Son Co. Greenhouse

The Sid Wainer & Son Co. Greenhouse sits on property that was once part of the former Taber Mill textile manufacturing complex. The site also housed a manufacturer of cardboard boxes and paper products, Alden Corrugated, which operated from 1947 until 1991. In 1995, the building was destroyed by fire and was subsequently demolished. Significant quantities of unprocessed demolition debris remained in the basement of the former building, and four abandoned underground storage tanks containing petroleum product remained on the south portion of the site.

The EPA Targeted Brownfields Assessment program assisted the City of New Bedford in conducting an environmental assessment on the property. Based upon initial results, New Bedford received additional funding to do a second assessment. These environmental assessment activities revealed that the soil, commingled with unprocessed construction and demolition debris, was contaminated with lead and polynuclear aromatic hydrocarbons.

In 2003, the Massachusetts Department of Environmental Protection funded the removal of underground storage tanks from the south lot. The city excavated approximately 30,000 cubic yards and backfilled with clean fill, at a cost of $500,000. To facilitate redevelopment, the city subdivided the entire site into three lots: the northern lot (.42 acres) was sold to an abutting business to promote expansion, and the center lot (2.8 acres) and southern lot (.65 acres) were retained by the city.

The center site was sold to and redeveloped by Sid Wainer & Son Co., a company that originated in New Bedford in 1914 and is still headquartered there today. The company is a wholesaler, importer, exporter, distributor and grower of specialty produce and gourmet foods. The 3,000 square-foot greenhouses enable experimentation with both year-round greenhouse operation and inner-city farming. A variety of vegetables are grown in the greenhouses, including heirlooms and other varieties not typically grown in the northeast.

Showcase Community
Mystic Valley Development Commission, MA

The Mystic Valley Development Commission (MVDC), was formed to redevelop sites in parts of Malden, Medford and Everett, Mass., along the Malden River. The Commission was designated as one of New England's five Brownfields Showcase Communities. The Malden River has been regarded locally as an industrial river due to its historic use by factories along its banks to transport goods and materials and, often, to dump waste.

The legacy of that era remains in the river's polluted sediments, which are contaminated with oil, organic material, coal tars and polyaromatic hydrocarbons. The goal of the River's Edge project is to change this image by redeveloping more than 200 acres of underutilized riverfront land in Medford, Malden and Everett. Officials from these three cities have teamed up to transform the former industrial land on both sides of the river into a mixed-use development. The project will include development of the Malden River Park, and development in Everett and Malden. Work began with property acquisition and infrastructure improvements.

Until early 2004, River's Edge was known as TeleCom City, which reflected the cities' goal of focusing development on telecommunications. When the telecommunications industry began to decline, the MVDC shifted its focus to making the river a recreational resource.

For the River's Edge project, EPA has awarded the MVDC approximately $2.7 million in grants, including $1.25 million in assessment grants and $1.48 million in cleanup grants. Portions of those funds were utilized to prepare the waterfront sites for redevelopment.

Tufts University recently invested approximately $3 million for the construction of a boathouse for the university crew teams on a 7.5-acre section of the planned Malden River Park that will eventually extend for a mile and half on both sides of the river. The 9,000 square-foot boathouse is the first in the school's history and includes boat bays, storage racks, a viewing deck and training and locker rooms.

The new two-story, wood and brick boathouse is a centerpiece of the revival of the Malden River and is also a valuable community resource, as the top floor will be made available for community meetings. Tufts also plans to work with the three cities to develop local rowing programs and high-school crew teams.

EPA has awarded the Mystic Valley Development Commission approximately $2.7 million in grants to redevelop over 200 acres of underutilized riverfront land in Malden, Medford and Everett, Mass.

Boat House for the Tufts University crew team and community use in Medford, MA

Save The Bay Center foyer overlooking Narragansett Bay, RI

Showcase Community
Providence, RI

As an EPA Brownfields Showcase Community, the City of Providence has successfully redeveloped contaminated Olneyville neighborhood properties into urgently-needed affordable housing.

Providence, R.I., is one of New England's five designated Brownfields Showcase Communities. Through this designation, the city of Providence has successfully redeveloped contaminated properties into housing, including many much-needed affordable housing units at the Riverside Gateway Development in the Olneyville neighborhood. Another noteworthy redevelopment project is the Save The Bay Center, an environmental education center housed in a 17,600-square-foot new environmentally-friendly building that was built on a remediated former landfill site.

Riverside Gateway Development

Three lots with a long history of industrial use in Olneyville have been transformed into urgently-needed affordable housing.

Located along the Woonasquatucket River, Olneyville is one of the most economically distressed neighborhoods in Providence. Housing prices in Providence have skyrocketed in the past several years, causing a need for affordable housing. Using $80,000 of an EPA Brownfields Assessment Grant, the city hired a contractor to investigate three city-owned parcels designated for housing. The sites were chosen for their strategic location adjacent to the Riverside Mills, a brownfield that is being cleaned up and transformed into Riverside Park.

Environmental assessments of the three Olneyville lots in 2004 revealed a 10,000-gallon underground fuel storage tank and contamination from metals, polyaromatic hydrocarbons and petroleum. A Brownfields Assessment Grant enabled the city and the Olneyville Housing Corporation to leverage $200,000 in environmental cleanup funding and nearly $4,000,000 in grants and low-interest loans for affordable housing development.

The three lots are part of the Riverside Gateway Development, which created 32 new affordable housing apartments in two renovated and 13 new buildings. The goal of the development initiative is to ultimately bring community-controlled investment to the area. The large vacant parcels of land that line the Riverside Mills site have been converted into new two- and three-unit houses. Several vacant, abandoned and underutilized two- and three-family properties near Manton Avenue have also been rehabilitated into two-, three- and four-bedroom units as part of the project.

Save The Bay Center

Once a true island, the Sunshine Island site provides access to the bay for the people of South Providence. In the 1950s the site was used as a municipal dump and was paved over to be a drive-in theater. An EPA Targeted Brownfields Assessment Grant was awarded in 2000 to address contamination concerns at the Field's Point/Sunshine Island site.

The primary contaminant of concern discovered was methane, a product of historical landfill operations at the site. Ash and construction and demolition debris were also discovered, and elevated levels of total petroleum hydrocarbons, semi-volatile organic compounds, pesticides and metals were present.

The TBA Program also assisted Save the Bay in preparing their Remedial Action Work Plan and Engineering Evaluation/Cost Analysis for the Brownfields Cleanup Revolving Loan Fund (BCRLF) Program. The Save the Bay organization signed an agreement to borrow $700,000 from Rhode Island Economic Development Corporation's BCRLF to clean up the site so that it could be turned into an ecological education center. The remediation included construction of a stone slope protection, a venting system for methane release beneath the building foundation and an engineered cap.

The culmination of the redevelopment was the construction of the state-of-the-art Save The Bay Center. The main feature of the six-acre site is the 17,600-square-foot, environmentally-responsible "green" building that houses educational classrooms, exhibition space and the new headquarters for the Save the Bay organization. Also featured are a dock and shore-side facilities to support Save the Bay's boat fleet, including the 45-foot dedicated education vessel, the M/V Alletta Morris; picnic areas; parking/transportation infrastructure; and habitat restoration demonstration projects. Interpretive walking trails run along a portion of the shoreline, and a walking path takes visitors through the salt marsh. For the engineering-minded, there is a demonstration stormwater runoff management system. The Save the Bay project received the 2005 Phoenix Award for excellence in brownfields redevelopment.

1994 1995 1996 1997 1998 1999 2

brownfields & environmental justice

EPA is committed

to ensuring environmental justice for all people, regardless of race, color, national origin or income.

Brownfields & Environmental Justice

In the early 1990s, stakeholders expressed their concerns to EPA about the problems associated with brownfields across the country. More than 600,000 properties that were once industrial, manufacturing or commercial facilities were lying abandoned or underutilized due to the suspicion of contamination.

"It's important to us as municipal officials that everyone has access to the benefits of redevelopment. Cleanup of contaminated properties will provide jobs, housing and services to parts of the community where they are most needed."

-- Elaine Middleton
former Senior Planner
Somerville, MA

Brownfield areas, particularly those in city centers, were contributing to blight and joblessness in surrounding communities. Unknown environmental liabilities were preventing communities, developers and investors from restoring these properties to productive use and revitalizing impacted neighborhoods.

In 1994, EPA responded to the brownfields problem with an environmental protection approach that is locally based, encourages strong public-private partnerships and promotes innovative and creative ways to assess, clean up and redevelop brownfields. This approach empowers state, tribal and local environmental and economic development officials to oversee brownfields activities, and encourages the implementation of local solutions to local problems. EPA also has provided funding to create local environmental job training programs to ensure that the economic benefits derived from brownfields revitalization efforts remain in local neighborhoods.

EPA maintains an ongoing commitment to ensure environmental justice for all people, regardless of race, color, national origin or income. In recognizing that minority and/or low-income communities frequently may be exposed disproportionately to environmental harms and risks, EPA works to protect these and other burdened communities from adverse human health and environmental effects of its programs, consistent with existing environmental and civil rights laws and their implementing regulations, as well as Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (Feb. 11, 1994). Ensuring environmental justice means not only protecting human health and the envi-

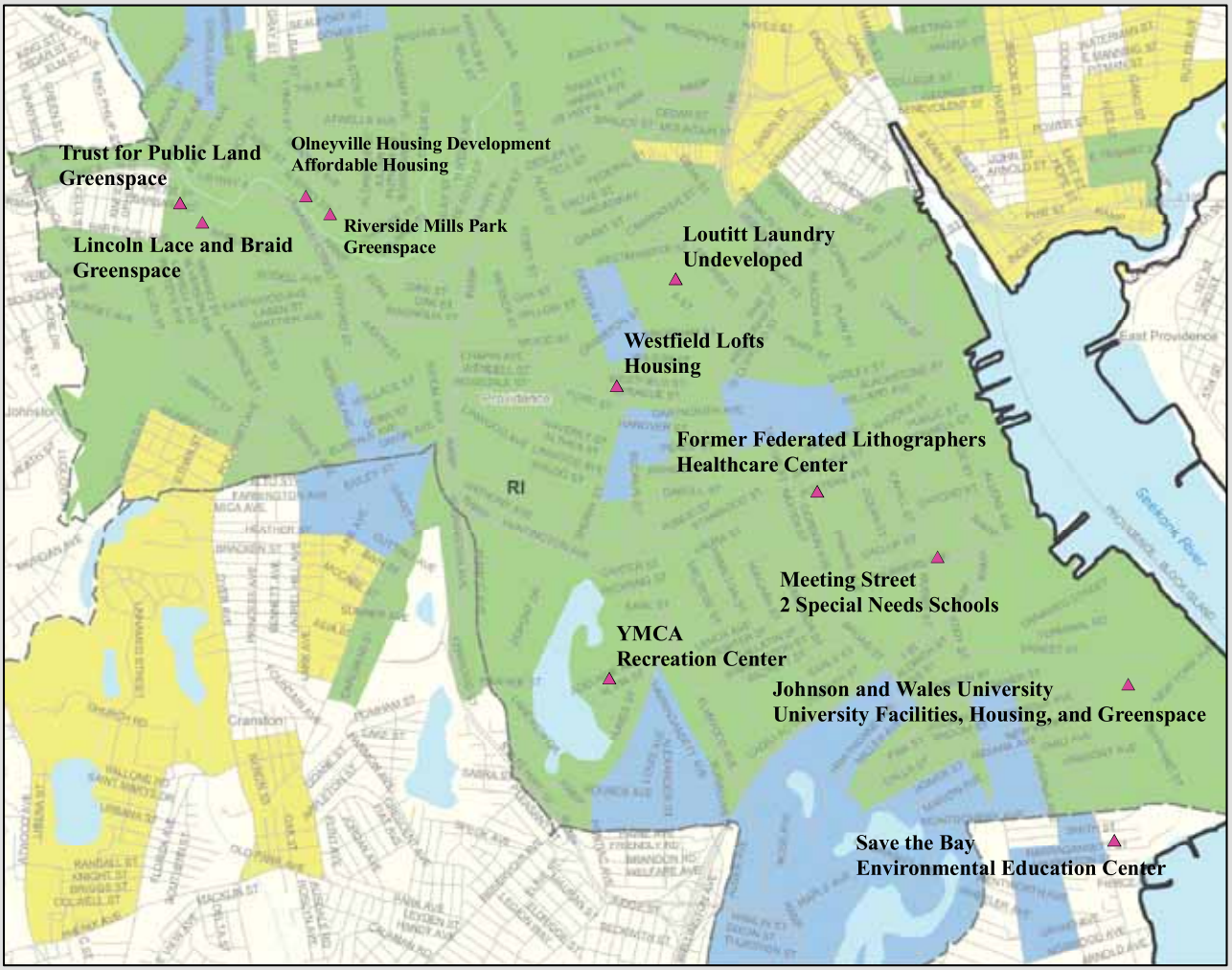
ronment for everyone, but also ensuring that all people are treated fairly and are given the opportunity to participate meaningfully in the decision-making about their environment.

Environmental Justice Focus in Providence

Providence is the capital and largest city in the state of Rhode Island, and is one of the most environmentally stressed cities in the New England region. Providence has a large number of brownfields sites because of the city's long industrial history. Providence has benefited from EPA's brownfields funding and, in turn, has used the funding to benefit the most economically distressed sections of the city. To date the city has received over $2.5 million in Brownfields funding from EPA. Community groups have been actively involved in dialogue with EPA and the city of Providence on reuse of brownfields sites, particularly along the Woonasquatucket River corridor. Community notification and community involvement are integral criteria that are built into the Brownfields Program. As a Brownfields Showcase Community, the city of Providence employed the Providence Plan group to conduct community outreach for brownfields activities.

Brownfields like the Lincoln Lace & Braid, Trust for Public Land and Johnson and Wales University sites in Providence were turned into park land, public space and athletic fields. Much-needed affordable housing was developed in Olneyville. Some brownfields sites like Save the Bay and Meeting Street were transformed into educational centers. And still other brownfields sites are being redeveloped in order to provide needed community services, like the Federated Lithographers site that will be turned into a neighborhood health care center and the YMCA site that will provide recreational opportunities for local children and adults. The city continues to work with the various neighborhood community groups and local, state and federal entities to identify and revitalize sites negatively impacted by environmental issues. Residents in these impacted areas should continue to see and experience improvements in their neighborhoods.

10 Years of Brownfields Progress in Providence, RI



Map Scale = 1: 35,000

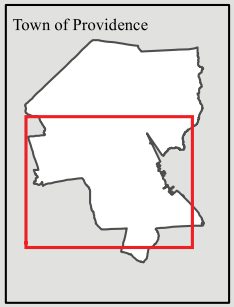
Legend

- Successful Brownfields Sites
- Roads
- Streams
- Major Waterbody
- Town Boundary

Environmental Justice Potential Areas of Concern

- Low Income
- Minority
- Both (Low Income and Minority)
- Neither
- Unpopulated

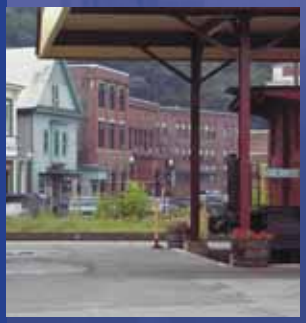
0 0.5 1 Miles



Environmental Justice Layer created from data from the US Census Bureau.

EPA United States Environmental Protection Agency New England

rural successes



By combining

removal of blight, revitalization of community life and preservation of existing green space, success has been achieved in rural areas.

Rural Successes

The New England region has many large and medium-sized cities, all of which have many brownfields properties. These cities have consistently received funding from EPA to assist in brownfields cleanup and redevelopment. However, during the last eight years, the region has also tackled the problem of brownfields in rural areas.

"The Brownfields Program is the catalyst for the revitalization of rural areas. Without this program, large and small former industrial sites would still be blights and sores in our communities. With this program these sites are becoming new centers of economic vitality."

-- Jim Q. Gulnac
Planning Director
Sanford, ME

These brownfields sites are frequently found downtown, sitting fallow for years while small communities attempt to come to terms with the contamination. The region has worked with and encouraged the local regional planning commissions (RPCs) and councils of government (COGs) to access EPA funding. These RPCs and COGs have the capacity to utilize the funding successfully, identifying and targeting numerous sites for assessment. In turn, they have helped to revitalize community life, remove blight and preserve green space. The following stories exemplify how successful the RPCs, COGs and small municipalities have been in brownfields redevelopment.

Program:
EPA Brownfields Assessment Grant

Grantee:
Windham Regional Commission

Rural Successes
Waypoint Visitors Center
Bellows Falls, VT

A former rail yard was transformed into the Waypoint Visitors Center along the Connecticut River Byway, incorporating in its design an echo of a steel arch bridge from the past. Bellows Falls, Vt., was home to the first canal company charted in the country and the site of the first bridge across the Connecticut River. The Bellows Falls canal provided power to mills and allowed lumber and barges to bypass the gorge by a series of nine locks. At the time of its construction in 1906, the Arch Bridge was the longest suspension bridge in North America. Eventually railroads and modern utilities replaced waterways as the primary modes of electricity generation and transportation, and Bellows Falls went through a period without growth or major change.

In 1999, Bellows Falls was chosen as a "waypoint" community along a newly created Connecticut River Byway. Waypoint communities were identified by New England states as crossroads communities with amenities such as lodging, restaurants, recreational activities and tourism sites in the region. A brownfields site in Bellows Falls across from the railroad station and along the canal was chosen as the location for a visitor and interpretive center.

Using a portion of a $350,000 EPA Brownfields Assessment Grant, the Windham Regional Commission performed environmental site assessment and monitoring. Site monitoring found that levels of tetrachloroethene in ground water exceeded Vermont ground water enforcement standards. This prompted the state to request a year of ground water monitoring and sampling of water conditions. Following the monitoring, results showed that no further action was required.

The Waypoint Visitors Center now provides tourists a window to the past and a central point to explore part of the Connecticut River Valley. A 145-foot replica of the Arch Bridge was incorporated into the new building design. The center is open to the public and also houses the Great Falls Regional Chamber of Commerce.

Echo of the old Arch Bridge in Bellows Falls, VT

Scenic Byway Program

In 1996, the states of Massachusetts, New Hampshire and Vermont received funding from the Federal Highway Administration's Scenic Byway Program to study the feasibility of developing a byway along the Connecticut River. Working with the towns along each side of the river, the regional commissions inventoried the historic, cultural, scenic, recreational and natural resources of the entire Connecticut River Valley. The selected "Waypoint" communities were identified as crossroads communities which offer amenities such as lodging, restaurants and other activities and sites in the region.

Program:
EPA Brownfields
Assessment Grant

Grantee:
Montachusett Regional
Planning Commission

Rural Successes
Levi Heywood Memorial Library
Gardner, MA

Economic recession in the 1990s left Gardner, Mass., with a deteriorated downtown, numerous foreclosures and increased relocation of businesses. The city focused on rebuilding the downtown and sought to open a new public library. In 1998, the Montachusett Regional Planning Commission—a regional advisory board comprised of representatives from 21 member communities—received a $200,000 Assessment Grant to assess brownfields throughout the region. One of the 22 properties assessed was 60 West Lynde Street in Gardner, Mass. The property was a focus of Gardner's Downtown Partnership Program, which planned to redevelop the former furniture manufacturing site and turn it into a library.

The onsite building was demolished in 1997 and the city purchased the property the following year. In 2001, the city began a reuse study for the property. Elevated levels of trichloroethene were found in soil borings and ground water well samples, and vinyl chloride was detected in the ground water. Remedial actions were taken, including excavation and disposal of contaminated soil. As a result of the assessment, local and state funds were leveraged to meet 80 percent of the $7.6 million needed for site cleanup and redevelopment. Construction of the new 32,000 square-foot Gardner Public Library and parking lot was completed in 2004.

Interior of the new library, Gardner, MA

Programs:
EPA Brownfields Assessment Grant
and
EPA Brownfields Cleanup Revolving Loan Fund Grant

Grantee:
City of Lewiston

Rural Successes
Bates Mill
Lewiston, ME

EPA funds helped a former Civil War textile mill get a new economic life. The Bates Mill was an integral part of Maine's industrial past, with a history that dates back to the Civil War. The textile manufacturer helped outfit the legendary Grand Army of the Potomac and was the largest employer in the state until the early 1960s. Operations stopped in the early 1990s, leaving six acres and dozens of buildings vacant and potentially contaminated. Lewiston gained ownership of the property and the Lewiston Mill Redevelopment Corporation, a nonprofit organization, now manages the property.

Faced with an economic and environmental behemoth, city officials and the community wanted to preserve the existing historic structure. At the same time, they wanted to assess and clean generations of site contaminants. Through a 1998 EPA Brownfields Assessment Grant of $200,000, an additional $75,000 in supplemental funding in 2000 and a $500,000 Brownfields Cleanup Revolving Loan Fund (BCRLF) Program Grant set up in 1999, Lewiston cleaned and renovated the 1.2 million square-foot textile mill. Environmental assessments revealed levels of polycyclic aromatic hydrocarbons, metals including lead, polychlorinated biphenyls (PCBs), volatile organic compounds, asbestos and petroleum products. As a result of its assessment, EPA conducted an emergency response action in 1999 that focused on removing the PCB contamination, asbestos and leaking chemical drums. Then the city capitalized its BCRLF for the cleanup of the entire mill.

The multi-use complex now brings millions of dollars in new business investments to the economy. New tenants include a bank, a portion of the University of Maine, restaurants, a telecommunications company, a photography arts center, a packaging company and various nonprofit organizations. With the EPA funding, the city leveraged a total of $41 million from federal, state and local sources, including $17 million in private investments. The city's economy was given a boost with the creation of 1200 new jobs and an additional $500,000 in annual tax revenue in private sector investment.

Bank facilities at the former Bates Mill in Lewiston, ME

One Riverfront Plaza Office Building & Parking Garage, Westbrook, ME

Program:

EPA Brownfields Assessment Grant and EPA Brownfields Cleanup Revolving Loan Fund Grant

Grantee:

City of Westbrook

Rural Successes
Riverwalk
Westbrook, ME

Several EPA Brownfields Assessment Grants and a Brownfields Cleanup Revolving Loan Fund (BCRLF) Grant provided funding for Westbrook, Maine, to assess several properties for environmental contamination, and perform cleanups, as part of its downtown comprehensive plan and Riverwalk Redevelopment. The Assessment Grants were for $450,000 in 2000 and $200,000 in 2004, and the BCRLF Grant was for $1.2 million in 2003. These EPA funds have led to construction of several office buildings, commercial businesses, a riverfront boardwalk with benches and lighting, walking trails, green spaces with picnic tables and a bike path to follow the Presumpscot River and connect with the neighboring Portland bike path system.

The two properties, totaling 1.67 acres, run along the shore of the Presumpscot River. A Phase II Environmental Site Assessment revealed polychlorinated biphenyl (PCB) levels in three transformers on the property that exceeded the Maine Department of Environmental Protection's (ME DEP) hazardous waste regulations. In the floor drains of one of the buildings, arsenic, lead, PCBs and benzo[a]pyrene were determined to be at concentrations exceeding ME DEP regulations. The city had pre-established two tax incremental financing districts for the construction of a 135,000 square-foot office building and 550-space garage to help defray development costs, which allowed for lower lease prices to some of the tenants. The city leveraged $1 million in federal highway funds and $250,000 in economic incentives to help defray the $6 million cost of the garage construction.

The new facility that opened in 2004 is called One Riverfront Plaza Office Building & Parking Garage.

Program:
EPA Brownfields
Assessment Grant

Grantee:
Two Rivers—Ottauquechee
Regional Commission

Rural Successes
Railroad Row
Hartford, VT

The historic, yet dilapidated, Twin State Fruit warehouse property in Hartford, Vt., underwent an economic and environmental recovery due to a $200,000 EPA Brownfields Assessment Grant awarded to the Two Rivers-Ottauquechee Regional Commission. This abandoned and contaminated 0.7-acre industrial property was made ready for a new commercial developer, promising and delivering new jobs and economic growth to the surrounding downtown neighborhood. The original building, in the heart of Hartford's Central Business District, was listed in the National Register of Historic Places. The building, which stood near the confluence of the White and Connecticut Rivers, operated as a feed and grain business until 1925 when it was taken over by Twin State Fruits. When the company left in 1995, the building fell into disrepair.

The site assessment uncovered the presence of environmental contamination, including three underground storage tanks, two of which still contained fuel oil. Additional tanks and surficial contamination were also suspected. A subsequent limited subsurface environmental assessment was performed that documented several tanks as well as asbestos, lead-based paint and the surficial contaminants—lead, arsenic, polycyclic aromatic hydrocarbons and petroleum hydrocarbons—all associated with the nearby railroad.

Armed with this assessment information, the new developer cleaned up the site, removing several tanks and excavating surface soil.

The site was redeveloped into a new office building that is nearly fully leased, and an adjacent property on Railroad Row has been demolished and replaced with a new office building, completing the renovation of what was almost a back alley into a vibrant downtown space. This redevelopment helped revitalize the town's important and historic Central Business District.

Revitalized downtown Hartford, VT

nonprofit successes

EPA concentrates

on providing outreach and technical assistance to nonprofit organizations, notably for affordable housing and community services.

Nonprofit Successes

EPA New England has recently concentrated on providing outreach and technical assistance to nonprofit organizations, notably for affordable housing and community services.

"The availablity of this cleanup grant funding to non-profit organizations has allowed us to provide services to the community that otherwise we would not be able to. The redevelopment of property in Norway, Maine, will be an important economic asset to our community."

-- Marcy Boughter
Vice President of Western Maine Development
(part of the Growth Council of Oxford Hills)

Since the enactment in 2002 of the Small Business Liability Relief and Brownfields Revitalization legislation, commonly called the Brownfields Law, nonprofit organizations can directly apply to EPA for cleanup grants for brownfields sites. This has opened up a new chapter in locally-based community revitalization. Nonprofit organizations have the unique ability to work directly with community residents to plan and execute beneficial redevelopments in their neighborhoods. EPA New England has recently concentrated on providing outreach and technical assistance to nonprofit organizations, notably for affordable housing and community services. Some recent successful projects in Connecticut, Massachusetts and Rhode Island are described on the following pages.

Program:

EPA Brownfields Cleanup Revolving Loan Fund Grant

Grantee:

Connecticut Department of Economic and Community Development

Nonprofit Successes

Main & Pavilion Shopping Center Hartford, CT

A $160,000 EPA Brownfields Cleanup Revolving Loan Fund (BCRLF) loan to a nonprofit group allowed for environmental cleanup of a site in Hartford, Conn., where a new shopping center was built, including a much-needed neighborhood grocery store.

The 2.46-acre site, immediately north of the center of Hartford, had formerly been occupied by residential structures, a dye works, a gas station, a state arsenal, an auto repair facility and a number of other retail and commercial businesses. A Phase I Environmental Assessment of the property was carried out in 1998 and, due to its past uses, further assessment was recommended. A Phase II Assessment carried out in 2000 found evidence of petroleum contamination in the soil and water.

EPA awarded a BCRLF of $434,171 to the Connecticut Department of Economic and Community Development (CT DECD). From that funding, the CT DECD provided a loan of $160,000 to Public Housing Residents Going Places, Inc., a nonprofit organization, for the project in the Clay Arsenal neighborhood of Hartford. The nonprofit organization was committed to address the local need for a grocery store. The EPA funds went toward removal of the contaminated soil. In 2003 and 2004, eight underground fuel storage tanks and 2,000 tons of contaminated soil were removed from the site. Post-excavation sampling was clean, so the site was backfilled and remediation was finished in 2005.

Construction followed and, by fall of 2005, the new Main and Pavilion Shopping Center, otherwise known as the "Metro Center," was finished, with 40,000 square-feet of retail space. In addition to construction jobs, the project created 36 new job opportunities for low- to moderate-income persons. A total of $5.2 million in federal, state, local and private funds went to the cleanup and redevelopment of the site. The new Metro Center is anchored by a Save-a-Lot grocery store and also includes a Family Dollar store, a laundromat and clothing and shoe stores.

Grand Opening of Save-a-Lot Grocery Store
in Hartford, CT

New home for the WEIR Corporation in Taunton, MA

Programs:

EPA Brownfields Cleanup Grant

and

EPA Brownfields Cleanup Revolving Loan Fund Grant

Grantee:

Weir Economic and Industrial Revitalization Corporation

and

City of Taunton

Nonprofit Successes

Robertson on the River Taunton, MA

Because of Robertson Mill's planned use as residential space, extensive assessment was conducted at the site and it was determined that remedial cleanup action was required. A subsurface investigation showed concentrations of polycyclic aromatic hydrocarbons (PAH), lead and C11-C12 aromatics. Three rail spurs serviced the mill, and soil borings showed that the high PAH and lead levels were concentrated in the former rail bed areas.

Financial help came in the form of a $500,000 EPA grant to the city in 2001, from which the city supported the Robertson on the River project through a subgrant for $148,000 and a loan for $140,000. In addition, EPA granted $52,000 in cleanup funding directly to the Weir Economic and Industrial Revitalization (WEIR) Corporation. The EPA Cleanup Grant helped to remediate the site, which included the excavation of the top three feet of soil along these rail spurs and replacement with clean fill. The loan and subgrant paid for asbestos materials, underground fuel storage tanks and transformers to be removed.

The Robertson Mill was cleaned up, restored and renovated to provide affordable housing and commercial space. The Robertson on the River project converted the 6.6-acre mill site into 64 loft-style affordable residential units and 18,000 square-feet of commercial space for businesses on the first floor. The site is now home to the WEIR Corporation, which continues to work on neighborhood improvements. The site also boasts riverfront green space, a playground and a basketball court.

Meeting Street Center,
Providence, RI

Program:
EPA Brownfields
Cleanup Grant

Grantee:
Meeting Street

Nonprofit Successes
Meeting Street National Center of Excellence Providence, RI

An economically stressed and contaminated neighborhood in Providence, R.I., is now home to Meeting Street National Center of Excellence. Meeting Street houses two special needs schools and a neighborhood community center. Meeting Street is nationally recognized for its exceptional educational, early intervention, childhood development and clinical services. With the development of the National Center of Excellence, a former residential and commercial site contaminated with lead, arsenic and other hazardous substances has been cleaned up and converted into a special needs school for children and young adults. Services will include education, recreation, mental health services for infants and children, family support, advocacy and research. The center will also serve as a resource for families, providing information on medical issues, treatment options and educational curricula.

The facility, which comprises 1.75 acres of the 7-acre site, features energy-efficient and environmentally friendly design and earned the Leadership in Energy and Environmental Design certification from the U.S. Green Building Council. Another three acres of the site that have been designated for greenspace will be developed into an outdoor play area and multiple athletic fields for community use. The facility will serve a less than one square mile target community in the Lower South area of Providence. This is a federally-designated Enterprise/Empowerment Zone with many vacant lots and little recreational space. The services available on the site are expected to improve quality of life in this economically distressed neighborhood in the heart of the city.

The construction of the National Center of Excellence is anticipated to create 15 new jobs. The center is expected to serve 1,700 children and their families on a yearly basis. According to the October 2003 Economic Impact Assessment conducted by BCOG Planning Associates, 369 jobs will be generated through pre-development real estate acquisition, construction and equipment purchase.

quality of life improvements

The intangible benefit of many brownfields redevelopment projects is the quality-of-life factor: making available otherwise scarce affordable housing, neighborhood services, educational opportunities, children's activities and public spaces.

Quality of Life Improvements

Along with the environmental and economic benefits of many New England brownfields redevelopment projects, there has also been success in providing housing, services, schools and rejuvenated public spaces that improve the quality of life for community residents.

"The use of this funding to cleanup brownfields for projects that result in other than economic development has been a huge benefit to Nashua. Cleanup funding is very difficult to locate for projects such as our new Senior Center and the Center is quite an enhancement to our community."

-- Deborah Chisholm
Brownfields Coordinator
Nashua, NH

These kinds of projects have the greatest public benefit. A visit to a new garden, a school or a park along a long-neglected riverway is always an inspiring event.

The projects featured on the next few pages from New Hampshire, Connecticut and Massachusetts are among dozens of success stories that illustrate the improvement in quality of life that results from brownfields redevelopment. EPA New England is proud to be part of these stories.

Programs:
EPA Brownfields Cleanup Grant
and
EPA Brownfields Assessment Grant

Grantee:
City of Nashua

Quality of Life Improvements
Senior Activity Center and Housing Facility
Nashua, NH

Major asbestos assessment and cleanup allowed the needed expansion of a popular senior center to add service space and housing facilities. The Nashua Association for the Elderly (NAE) has provided senior activity services in Nashua, N.H., since 1980. The Senior Activity Center opened its doors in 1983, but as demand increased, the adequacy of the 10,000 square-foot building became limited by its size. The need to expand the senior center, plus a desire to incorporate a new elderly housing component as suggested in the city's Downtown Master Plan, became joint goals that drove change. In 2003, the city began a collaborative effort with NAE to identify opportunities for expansion, and the city's Board of Aldermen approved bonding of up to $2.4 million to construct the Senior Activity Center. Meanwhile, Southern New Hampshire Services expressed interest in providing the elderly housing component and successfully pursued U.S. Department of Housing and Urban Development funds for that use.

Located along Nashua's Heritage Trail atop the banks of the Nashua River, the site is comprised of two parcels of land, which were formerly vacant or used for multi-family housing. In the past, the property's natural depression was filled in with building debris and asbestos materials, and then covered with soil. The buried asbestos later became a well-known problem.

Phase I and Phase II Environmental Assessments conducted in 2003 confirmed the asbestos, the location and extent of which were determined through an innovative approach utilizing a geophysical survey, electromagnetic terrain conductivity and low-amplitude, ground-penetrating radar combined with normal test pit results. In some areas the asbestos content of fill material was as high as 70 percent and the thickness of the contamination was discovered to be as much as 35 feet.

Cleanup activities, which were funded by an EPA Brownfields Cleanup Grant, began in June 2005. In a unique move, the city created an Asbestos Disposal Team comprised of licensed and certified asbestos disposal site workers who performed the removal work at an under-budget cost.

The 24,000 square-foot senior center was completed in the summer of 2006 and features 43 units of housing and a billiards room, a computer room, a library, a craft area, a dance room and a gym.

Activity side of senior center
in Nashua, NH

In operation, Urban Oaks Organic Farm in New Britain, CT

Program:
EPA Brownfields Assessment Grant

Grantee:
City of New Britain

Quality of Life Improvements
Urban Oaks Organic Farm New Britain, CT

An EPA Brownfields Assessment Grant provided much-needed funding to the city of New Britain, Conn., so that an organic farm could be safely constructed on a formerly contaminated property. After the long-standing New Britain business, Sandelli Greenhouses, Inc., closed in 1997, its four properties became overgrown and turned into the neighborhood dumping ground. Also in 1997, New Britain received a $200,000 Assessment Grant to conduct environmental site assessments on city brownfields.

The city conducted Phase I and Phase II Site Assessments on the former Sandelli properties. The assessments concluded that the properties required environmental remediation on one parcel and debris cleanup on all parcels. The assessment also revealed greenhouse-related debris, including glass, metal and plastic pieces, ceramic pots, metal piping, bottles, cans, discarded automotive parts, old tires, an abandoned car, metal scaffolding, roofing material, asphalt, concrete and bricks. Large soil piles and 55-gallon drums also littered the site. Residents helped clear the Sandelli site of non-hazardous debris and the remaining cleanup was conducted by specialized asbestos and demolition contractors.

One of the former Sandelli properties has been redeveloped into the Urban Oaks Organic Farm. The nonprofit farm provides education for residents and school groups in organic gardening methods, sustainable agriculture, composting, natural pest control and non-toxic and otherwise environmentally friendly farming techniques. The establishment of the organic farm has helped enhance the urban environment by demonstrating environmentally responsible farming and by providing greenspace in a dense urban area.

Program:
EPA Brownfields Assessment Grants

Grantee:
City of Somerville
and
City of Springfield

Quality of Life Improvements
Head Start Facilities
Somerville and Springfield, MA

In Massachusetts, two Head Start facilities were opened recently in Somerville and Springfield on former brownfields sites. Both of the sites exemplify the reuse of small acre properties within urban cores. Both of these projects resulted in new employment opportunities, additional educational opportunities for neighborhood children and increased tax bases.

Somerville

March 2005 marked a new beginning for the Community Action Agency of Somerville's (CAAS) Head Start Program. After looking for a home that would bring together its children's educational programs that have been historically scattered throughout Somerville, its quest for a new, central location to house its programs has finally come to fruition.

Creativity and perseverance paid off when CAAS spotted three vacant lots on Allen Street, a cluster of brownfields located in the densest neighborhood of Somerville. Using a portion of an EPA Brownfields Assessment Grant for $350,000 that was awarded to the city in 1996, CAAS and the city worked together to assess all three sites for contamination. This work revealed that the soil and water was contaminated with polychlorinated biphenyls, volatile organic compounds, polycyclic aromatic hydrocarbons, antimony, arsenic, lead and nickel.

Funding for the cleanup and building came from multiple private and public donors. In March of 2005, the facility opened eight classrooms that serve a total of 126 children. By cleaning up these blighted properties and opening this educational facility, the city of Somerville and CAAS restored pride in the neighborhood, improved the tax base for the city and provided a valuable resource for the children of low-income families.

Springfield

The former Carew Street School, located at 65 Carew Street, in Springfield, Mass., had been constructed in 1894. After years of neglect, the city demolished the building in 1999. Due to the historical uses of adjoining parcels, which included an electrical substation, there was great concern that the property was contaminated. Utilizing a portion of a $200,000 EPA Brownfields Assessment Grant provided in 1998, the city conducted an environmental assessment of the property. The Phase II Environmental Assessment was completed in 2000 and indicated that no contamination was present on the school site.

City officials and neighborhood residents participated in the selection of a developer and the final redevelopment proposal. The new facility consists of a one-story, 9,000 square foot building that was built to accommodate

Kids at the sand table at the Head Start in Somerville, MA

the Head Start Program. The building opened in the fall of 2003 servicing the needs of 190 children. Thirty-five staff and other employees work at this location. The redevelopment of this property leveraged over $1.5 million.

The redevelopment of this property is especially important to this community because of the improvement in the appearance of the neighborhood, the additional jobs and the increase to the tax base for the city.

job training
overview

More than 2,700

participants—approximately 600 in New England alone—have already been trained through EPA's Brownfields Job Training Programs, with graduates earning an average of $13.00 per hour.

Job Training Overview

EPA New England's Brownfields Job Training courses complement the overall goals of the Brownfields Program by facilitating cleanup of brownfields, while preparing individuals for long-term environmental careers.

"EPA is very smart to fund job-training programs because this is where residents benefit directly from brownfields redevelopment. Job training equips residents to play the active role they need to play in the decisions that shape the future of their communities."

-- Gary Kaplan
Executive Director
JFYNetWorks

The primary goal of the Brownfields Job Training Program is to recruit, train and place residents from brownfields-impacted communities in careers in the environmental field, which in turn promotes the assessment, remediation or preparation of brownfields sites for redevelopment.

EPA, other federal agencies, local job training organizations, community colleges, labor groups and others have established partnerships to foster workforce development through environmental training, ensure the recruitment of trainees from socio-economically disadvantaged communities, provide quality worker-training and allow local residents an opportunity to qualify for jobs developed as a result of brownfields efforts.

EPA's Brownfields Job Training Grants bring together a variety of stakeholders to provide environmental employment and training for residents in communities impacted by brownfields. EPA Brownfields Job Training Grants are typically awarded to entities within urban, low-income and high-minority areas; the training programs funded by these grants not only recruit residents of communities affected by brownfields, but those in public assistance programs (including Welfare-to-Work), under or unemployed residents, single mothers and veterans.

Eligible entities for Job Training Grants across all EPA regions include colleges, universities, regional Workforce Investment Boards, community job training organizations, nonprofit training centers, states, counties, municipalities, federally recognized Indian tribes (except Alaskan Tribes) and U.S. Territories. Various trainee recruitment strategies are used, including working with community and city organizations, college and high school alumni, existing job training and placement programs, local Welfare-to-Work Programs and the media.

Class instruction

Grant recipients also conduct house-to-house visits, community meetings and forums and open enrollment sessions to get the word out to potential trainees.

The job training programs enabled through EPA grants improve the lives of residents from often socio-economically disadvantaged communities, offering them life skills instruction and employment opportunities that would otherwise have been out of reach. Within New England, Brownfields Job Training courses have educated trainees in subjects including environmental science, chemistry, math and business writing. Graduates have gone on to work at prestigious institutions such as the Massachusetts Institute of Technology and as Field Technicians and Hazardous Waste Operations and Emergency Response Safety Inspectors. Still others have been deployed to New Orleans to assist with hurricane cleanup efforts.

Additionally, some Job Training Grant recipients used the funding to offer supervisor-level training in lead and asbestos abatement and certifications in Advanced Hazardous Waste Transport and Advanced Brownfields Redevelopment. And some New England cities offer tax incentives for employers that hire graduates of Brownfields Job Training Programs—such as the Work Opportunity Tax Credit, which allows an employer to deduct as much as $2,400 for each qualifying employee.

More than 2,700 participants—approximately 600 in New England alone—have already been trained through EPA's Brownfields Job Training Program, with graduates earning an average of $13.00 per hour in New England. Through environmental job training and life skills instruction, the lives of local residents are transformed as dramatically as the brownfields that had affected their communities.

Class field trip and job training graduation in Boston, MA

New England Job Training Grantees through 2006

City of Bridgeport, CT
City of Brockton, MA
Coalition for a Better Acre
(serving residents from "The Acre" in Lowell, MA)
Groundwork Providence
(serving residents from Providence and Pawtucket, RI
JFY NetWorks, Inc.
(serving residents from Boston, Chelsea, Somerville, Lynn and Malden, MA)
City of Lewiston, ME
Merrimack Valley Workforce Investment Board
(serving residents in Lawrence, MA)
Middlesex Community College
(serving residents from Middletown, Meriden, New Britain, Portland, Haddam and Wallingford, CT)
City of New Bedford, MA
City of Stamford, CT
The WorkPlace, Inc.
(serving residents from Bridgeport, Naugatuck Valley and Stamford, CT)

contacts & acknowledgements

EPA New England

works closely with its grant recipients and other stakeholders to provide technical and programmatic assistance. Please feel free to call us. We also encourage interested parties to contact their state Brownfields Coordinators for more detailed information on the state programs and available funding resources.

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Visit
www.epa.gov/ne/brownfields

for additional stories and information on how EPA's Brownfields Program is rebuilding New England, community by community.

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Brownfields 2006

EPA New England

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New England Brownfields Grant Recipients 1994-2006

Addison County Regional Planning Commission
Androscoggin Valley Council of Governments
Attleboro
Bath
Bennington County Regional Commission
Berkshire Regional Planning Commission
Berlin
Boston
Boston Connects People to Economic Opportunity, Inc.
Boston Redevelopment Authority
Brewer
Bridgeport
Bridgeport Department of Social Services
Bristol
Brockton
Brunswick
Burlington
Burrillville
Capitol Region Council of Governments
Carver
Central Vermont Regional Planning Commission
Chelsea
Chicopee
Chittenden County Regional Planning Commission
Claremont
Central Massachusetts Economic Development Authority
Coalition for a Better Acre
Colrain
Concord
Cranston
Connecticut Department of Environmental Protection
Connecticut Department of Economic and Community Development
Danbury
Downtown Revitalization Corporation
Durham
Easthampton
Ellsworth
Essex Historical Society and Shipbuilding Museum
Everett
Fitchburg
Fitchburg Redevelopment Authority
Franklin Region Council of Governments
Gardner
Georgetown Redevelopment Corporation
Gloucester
Great Barrington
Greenfield
Greenwich
Griswold
GroundWork Providence
Habitat for Humanity of Southeastern Connecticut
Haddam
Hartford
Haverhill
Holyoke
JFY Networks
Jobs for Youth
Johnson & Wales University
Keene
Kennebec Valley Council of Governments
Lamoille County Planning Commission
Lawrence
Lewiston
Lowell
Lynn
Massachusetts Department of Environmental Protection
Main South Community Development Corporation
Maine State Planning Office
Mansfield
Marlborough
Massachusetts Highway Department
Maine Department of Environmental Protection
Meeting Street
Meriden
Merrimack Valley Planning Commission
Merrimack Valley Workforce Investment Board
Methuen
Middlesex Community College
Middletown
Monson
Montachusett Regional Planning Commission
Mystic Valley Development Commission
Nashua
Nashua Regional Planning Commission
New Bedford
New Britain
New Haven
New London
New Milford
Newington
New Hampshire Coastal Planning Office
New Hampshire Department of Environmental Services
Norfolk County
North Adams
North Brookfield
North Country Council
North Star Center for Human Development
Northampton
Northborough
Northeastern Vermont Development Association
Northwest Regional Planning Commission
Norwalk Redevelopment Agency
Norwich
Orono
Peabody
Pioneer Valley Planning Commission
Portland
Providence
Providence Community Health Centers
Raymond
Regional Growth Partnership
Rhode Island Department of Environmental Management
Rhode Island Economic Development Corporation
River Valley Growth Council
Rutland Redevelopment Authority
Rutland Regional Planning Commission
Salem
Sanford
Shelton
Somerville
South Brewer Redevelopment, LLC
South Central Regional Council of Governments
Southern Maine Regional Planning Commission
Southern Windsor County Regional Planning Commission
Southwest Region Planning Commission
Sprague
Springfield
Stamford
STRIVE/Boston
Taunton
The Workplace, Inc.
Torrington
Trust for Public Land
Two Rivers-Ottauquechee Regional Commission
Valley Council of Governments
Vermont Agency of Commerce and Community Development
Vernon
Vermont Department of Environmental Conservation
Walpole
Warwick
WEIR Corporation
West Springfield
Westbrook
Westfield
Winchester/Winsted
Windham Regional Commission
Woonsocket
Worcester

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