



# Strategies for Success

Regional Approaches to Brownfields Redevelopment

National Association of Development Organizations Research Foundation

June 2006

# ABOUT NADO AND THE NADO RESEARCH FOUNDATION

The National Association of Development Organizations (NADO) provides advocacy, education, research and training for the nation's regional development organizations. Building on nearly four decades of experience, the association offers its members exclusive access to a variety of services and benefits -- all of which are designed to enhance the ability of regional development organizations to foster "regional solutions" to local government, business and community needs.

Founded in 1988, the NADO Research Foundation is the non-profit research affiliate of NADO. The Foundation identifies, studies and promotes regional solutions and approaches to improving local prosperity and services through the nationwide network of regional development organizations.

With support from the U.S. Environmental Protection Agency (EPA), the NADO Research Foundation initiated its work in brownfields redevelopment in 1998. The initial research was enhanced with outreach and education for rural and small metropolitan communities that resulted in workshops, scans, questionnaires and reports. These reports identify challenges, explore obstacles and include profiles of rural and small community successes in brownfields revitalization.

In 1999, the Research Foundation began researching and analyzing assessment, cleanup and redevelopment obstacles. The findings were published in a 2000 report entitled *Reclaiming Rural America's Brownfields*. Since 2000, four reports and a resource guide have been released:

- *Reclaiming Rural America's Brownfields: Alternatives to Abandoned Property* (2001)
- *The State of Rural and Small Metropolitan Brownfields Redevelopment* (2002)
- *Brownfields Resource Guide for Rural and Small Communities* (2002)
- *Incorporating Brownfields Revitalization Projects into Regional Comprehensive Economic Planning: The Impact on Rural and Small Metropolitan Redevelopment* (2003)
- *Six Common Threads: Weaving Successful Brownfields Projects into Rural and Small Communities* (2003)

For more details and copies of the Research Foundation's brownfields reports, visit [www.nado.org/pubs/brownfields.php](http://www.nado.org/pubs/brownfields.php).



## Acknowledgements

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## EXECUTIVE SUMMARY

### Measuring the Impact of Brownfields Redevelopment

The 22 regional development organizations that participated in the scan report:

- Over 1,600 jobs created or retained, with the expectation of thousands more as projects proceed to redevelopment
- More than \$10.9 million leveraged by scan respondents, in addition to their EPA brownfields funding
- Nearly 3,000 brownfields sites identified
- 137 brownfields properties currently undergoing assessment, remediation and redevelopment

The NADO Research Foundation conducted a nationwide scan to learn how regional development organizations funded and conducted brownfields redevelopment as part of their overall regional economic development strategies.

The scan, conducted in late 2005 and early 2006, identified 46 regional development organizations that received funds from the Environmental Protection Agency (EPA) between 1998 and 2006 to assess, clean up and redevelop former dry cleaners, textile mills, gas stations, mining sites, gravel pits, meth labs and a host of other properties. According to EPA, brownfields include any 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.

The research focused on how regional development organizations (RDOs) became involved in brownfields redevelopment, former and future uses of sites, property ownership, redevelopment strategies, varied approaches to meeting administrative costs and securing outside funding, participation in state programs and how they use environmental insurance, consultants, GIS and the Internet.

The 46 regional development organizations that have received EPA brownfields funding prior to 2006 were invited to participate in the scan. Twenty-two participated. Six organizations received their first EPA brownfields grants in 2006 and were not included in the scan since the research project was initiated in 2005.

A group of 15 RDOs were selected for a more in-depth examination based on diversity, project process, source of funding, experience, location and types of sites. Among those interviewed, three organizations were working directly or indirectly on brownfields projects without EPA brownfields funding.

### Fifteen regional development organizations were studied in depth:

- Ark-Tex Council of Governments (AR/TX)
- Association of South Central Oklahoma Governments
- Beartooth Resource Conservation and Development Area (MT)
- Kennebec Valley Council of Governments (ME)
- Land-of-Sky Regional Council (NC)
- North Country Council (NH)
- Northwest Piedmont Council of Governments (NC) \*
- Sage Community Resources (ID)
- South Florida Regional Planning Commission
- Southeast Iowa Regional Planning Commission
- Southern Windsor County Regional Planning Commission (VT)
- West Central Arkansas Planning and Development District \*
- West Michigan Shoreline Regional Development Commission \*
- Western Piedmont Council of Governments (NC)
- Windham Regional Commission (VT)

*\* Regional development organization does not administer EPA brownfields funding, but is directly and/or indirectly involved in facilitating one or more brownfields projects.*

## Regional Approaches to Brownfields Redevelopment: Overview of Scan Findings

Significant advantages result from using a regional approach to brownfields redevelopment. Regional development organizations (RDOs) can assess the needs and resources of many counties, cities, towns and rural areas. They are experienced at packaging project funding and providing technical assistance to communities within their jurisdiction. With their flexibility and broad range of skills, regional development organizations have experience in coordinating local efforts and facilitating regional dialogue, coordination and strategic planning, which is beneficial for envisioning assessments, cleanups and end uses for brownfields sites.

Regional development organizations are well-suited to coordinate regional strategies for brownfields redevelopment because they are:

- Recognized and established under state law or executive order
- Experienced with economic development, land use and environmental planning
- Owned and governed by local government officials and have strong links to community leaders
- Service providers and coordinators for a variety of federal economic development, community development and human service programs
- Experienced with fostering regional collaborations and dialogue among local government officials within a region and state
- Known by local government and community leaders as credible and professional organizations
- Accountable organizations with strong fiscal and grant management experience

Across the nation, RDOs continue to add brownfields redevelopment to their portfolio of community and economic development activities. As a field that only emerged in the early 1990s, the number of regional organizations involved in brownfields projects has risen quickly. Brownfields sites are a priority because they may contain substances harmful to human health and the environment. However, assessment, cleanup and marketing of sites restores them to their full economic potential.

In the Research Foundation's 2001 scan of its members, only 30 organizations of the 100 who responded were engaged in brownfields work. Now, the numbers are far greater. In addition to those organizations receiving EPA brownfields funding, others have received varied federal and state grants for redevelopment projects. Additional RDOs have been important players in brownfields projects by assisting local partners with securing funding and providing technical assistance.

The 46 regional development organizations currently receiving EPA brownfields funding is a measure of success. Based on scan participant feedback, it is clear that learning about organizations involved in brownfields redevelopment is an effective promotional tool for initiating brownfields programs.

## Regional Development Organizations

The term Regional Development Organization (RDO) is used to describe the national network of multi-jurisdictional planning and development organizations that provide administrative, professional and technical assistance to more than 2,000 counties and 15,000 municipalities across the nation.

These public entities are often known locally as:

- Councils of government
- Area development districts
- Economic development districts
- Local development districts
- Planning and development districts
- Planning and development commissions
- Regional development commissions
- Regional planning commissions
- Regional councils

Each organization is typically governed by a policy board of local government officials, with additional representation of business and community leaders.

These entities are key catalysts for strategic planning, partnerships and initiatives that are designed to meet locally-identified needs and conditions. The core philosophy of regional development organizations is to help local officials and communities pool their limited resources to achieve economies of scale, build organizational skills and professional expertise and foster regional cooperation and collaborations.

# Contaminants at Brownfields Sites

Common brownfields properties may require cleanup and remediation activities that address contaminants often associated with the sites' former uses.

## Manufacturing/industrial facilities

- Glass manufacturing: Lead, arsenic
- Herbicide/pesticide manufacturing and use: Dioxins, arsenic, copper, volatile organic compounds (VOCs), solvents
- Munitions manufacturing: Lead, copper, antimony, unexploded ordinance
- Paint manufacturing: Metals, VOCs, chloroform, ethylbenzene, solvents
- Plastics manufacturing: Polymers, phthalates, cadmium, solvents, resins, chemical additives, VOCs

## Gas stations

- Petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes, fuel, oil

## Railroad sites

- Petroleum hydrocarbons, VOCs, solvents, oil, lead, polychlorinated biphenyls (PCBs), benzene, toluene, ethylbenzene, xylenes

## Landfills

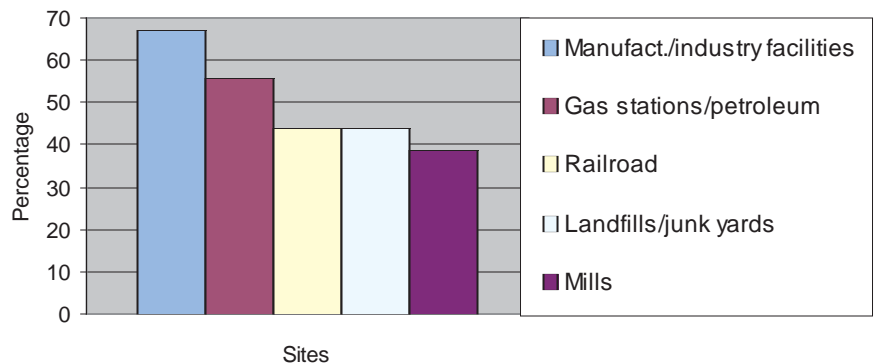
- Metals, VOCs, PCBs, ammonia, methane, household cleaners, pesticides, hydrogen sulfides

## Mills

- Textile/leather: Toluene, benzene
- Wood/paper: Chlorinated organic compounds, dioxin, furans, chloroform, resin acids

Source: Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup, 2nd Ed, EPA

Brownfield Sites Identified by Scan Participants



A loss of industries and jobs in a region often results in an increase of dilapidated, unused or underused properties. This was the case for several organizations profiled in this report.

Regional organizations have initiated brownfields projects in their regions for a variety of reasons:

- In **Southeast Iowa** and the **Western Piedmont** region of North Carolina, rundown buildings and severe job loss resulted when many industries closed
- The **Kennebec Valley Council of Governments** in Maine, **Ark-Tex Council of Governments** in Arkansas and Texas learned about including brownfields redevelopment in their economic strategies from their peers
- Decreasing the risks to human and environmental health were important for the **West Michigan Shoreline Regional Development Commission**, since a former chemical company and other sites were located in the region
- The **Association of South Central Oklahoma Governments** has initiated redevelopment of a former public housing site into a soccer field, an open space likely to have positive spillover effects in the local economy
- The **Windham Regional Commission** in Vermont is retaining a piece of local history by redeveloping a pipe organ factory into a pipe organ museum, while adding housing and office space

Organizations new to brownfields redevelopment are creating workplans, developing steering committees and familiarizing themselves with the process. Local partners often include both public and private interests, including real estate experts and developers, bankers and laypeople – people with history and credibility in the community.

## Economic Development and Brownfields Synergies

Regional development organizations designated as economic development districts by the Economic Development Administration (EDA) must complete a Comprehensive Economic Development Strategy (CEDS) to receive funds under most EDA programs. The CEDS process entails identifying effective general planning practices to design and implement a plan to guide economic growth, addressing the region's economic opportunities and constraints.

Regional development organizations have an advantageous position for incorporating brownfields projects into a region's CEDS: they know what type of development is needed and are familiar with the region's assets. Scan respondents reported that brownfields are a key element of regional plans for economic development and that redevelopment is consistent with goals of the CEDS. Redevelopment projects may be included in a CEDS in various ways. Some organizations identify redevelopment as a general goal for directed economic growth, while others mention specific sites as redevelopment priorities in their CEDS. Brownfields projects that encompass job creation or that are located in targeted areas may be given a higher priority.

One respondent's CEDS has a specific brownfields program strategy leading to restoration, revitalization and redevelopment throughout the region. Another identified the number of brownfields in the region, sources available to assess and remediate the sites, a summary of key brownfields sites and examples of successful redevelopments. Another region recognized brownfields as an issue because many manufacturers had vacated local sites. One organization's brownfields team works with EDA to prioritize sites according to their potential for economic development.

For many respondents, redevelopment of abandoned or under-used industrial sites is preferable to developing greenfields to accommodate new economic growth. By filling in already-developed spaces, redevelopment preserves open space and green infrastructure, which benefits the region's ecological health and human quality of life. It also effectively supports local job creation and tax base diversification.

Scan respondents cited numerous redevelopment opportunities that could be included in an economic development strategy. Respondents also identified various end uses that meet regional needs, such as mixed use developments, parks and recreation areas or housing. Almost all respondents mentioned some potential recreational or park use in their brownfields redevelopment projects, showing an increased interest in creating open space.

## Site Assessment Tips

### Phase I:

- Establish a minimum level of inquiry for the Phase II Environmental Assessment by evaluating historical uses of the site
- Identify areas on or adjacent to the property where hazardous substance discharges occurred or potentially occurred
- Determine the types of investigation and sampling that should be included in the Phase II Assessment

### Phase II:

- Develop accurate maps showing all areas of concern identified in the Phase I Environmental Assessment and the proposed sampling locations
- Identify the analytical parameters for each sampling location
- Describe the rationale for selecting each sampling location and the analytical parameters

Source: Wisconsin Dept. of Natural Resources, <http://www.dnr.state.wi.us/org/aw/rr/cleanup/esi.htm#I>

## Measurable Results

The Association of South Central Oklahoma Governments' (ASCOG) measures of success include:

- Pilot assessments completed
- Non-pilot assessments started
- Non-pilot assessments completed
- Clean sites
- Cleanups started
- Cleanups completed
- Redevelopment started
- Cleanup construction jobs leveraged
- Non-pilot cleanup dollars leveraged
- Redevelopment jobs leveraged
- Non-pilot dollars leveraged for construction/redevelopment

Since the beginning of ASCOG's program, their results have included:

- \$1,509,240 in non-pilot cleanup dollars leveraged
- 301 redevelopment jobs leveraged
- \$1,255,000 non-pilot dollars leveraged for construction and redevelopment
- 11 sites needing no remediation
- Three cleanups completed
- Four redevelopments in progress

## Economic Impact of Brownfields Redevelopment

EPA provides millions of dollars in funding for brownfields assessment, cleanup, revolving loan fund and job training grants annually. The most commonly reported outcomes of these regional projects were increased community awareness of environmental concerns, additional community involvement, job creation and increased tax revenues.

Brownfields redevelopment is an environmental and public health issue, since it involves identifying and remediating contamination. But for many regions, the most significant outcomes of brownfields projects are related to community and economic development: job creation and retention, increased tax revenues and downtown revitalization. Typically, priority sites are in downtown areas because these projects can bring new economic and social activity to areas in disrepair.

Regional development organizations also reported that brownfields redevelopment projects reduce barriers to reuse, improve ecological health and create housing, public parks and green space through such projects as the conversion of rails to trails. Some organizations have documented the region's success by establishing measures such as units of housing or number of parks created, new mentions of brownfields or site redevelopment in municipal plans or an increase in the number of inquiries into brownfields program.

The Land-of-Sky Regional Council in North Carolina estimates that \$350-500 million in economic benefits in the Council's region have resulted from their brownfields work. Permanent job creation has not yet been measured, but jobs and new business development are expected once the projects proceed to redevelopment. Most of Land-of-Sky's projects are currently in the assessment or cleanup phases, and some redevelopment plans have been completed and have developers committed. To date, there have been approximately 50 redevelopment/construction jobs. Council officials estimate that these projects require five to 10 years due to the size and rural nature of the areas. As a result, funding accumulation and development has been slower.

The Northwest Piedmont Council of Governments (COG), also in North Carolina, has significant data on its job training program. The program is conducive to reporting on results because specific numbers of students are completing the program, securing jobs and earning wages. The initial goal was to enroll at least 30 students. To date, over 70 students have completed the program and more than 20 students had already enrolled in early 2006.

The West Central Arkansas Planning and Development District has gained 25 jobs from its brownfields project – an industrial park. The job creation is significant considering that Plainview has a population of 755 people, and the project generates additional taxes. Plainview owns the building, providing a rental income stream for additional economic development.

Other scan participants shared similar stories of jobs created and downtown areas revitalized. In some cases, the results from one encouraged organizations to move forward with assessment and cleanup of additional sites.

## Fundamentals of Redevelopment

Under half of the scan respondents have already completed a brownfields redevelopment project, and the rest are either just beginning or still working on a project. The organizations scanned are working with over 137 sites combined. Almost half of the sites are in the assessment phase to characterize the type and levels of contamination, including one involving petroleum cleanup.

Many of the brownfields properties are owned publicly by a city or town or, in some cases, the regional development organization. These were acquired mostly by tax foreclosure (64 percent), while 29 percent were by donation and seven percent by condemnation. The most prevalent sites are manufacturing or industrial facilities. Other common sites include gas stations and petroleum sites, railroad sites and mills.

Each brownfields site has its own set of challenges according to its historical uses. Project administrators may use EPA brownfields funding to hire experienced consultants to complete Phase I and Phase II assessments, initial inventories, project management or other technical aspects of redeveloping contaminated or potentially contaminated sites. EPA allows grantees to use a request for proposal or a request for quote with a pre-approved state list of contractors to find the most appropriate consultant. Ninety-five percent of scan respondents use consultants in their brownfields work.

## Securing Brownfields Funding

All of the scan respondents received EPA brownfields funding for activities such as assessment or cleanup. However, EPA prohibits the use of brownfields funding to cover administrative costs, an issue of great concern for many respondents. While some organizations report that this restriction is not a barrier, most stated it was a significant challenge. Over half (55 percent) responded that a gap exists between EPA funding and the dollars required to complete the project.

Regional organizations have various sources for administrative funds. Annual dues from local government members or unrestricted funds help cover costs for many organizations. In other cases, supplemental state funding or funding from the Economic Development Administration or Appalachian Regional Commission is used. Some respondents absorb these costs.

The Land-of-Sky Regional Council in North Carolina estimates that 66 percent of salaries spent on their brownfields projects are for indirect or administrative costs, with administrative costs accounting for 17 to 18 percent of the overall project cost. On a \$200,000 grant project, the administrative costs amount to approximately \$35,000. Member dues (which account for less than two percent of their overall budget) are used to cover these costs.

The Association of South Central Oklahoma Governments' administrative costs total about \$40,000 for each two year cycle. The association has partnered with a local private economic development foundation and a tribal group to cover the administrative costs incurred.

## Treating Contamination

Numerous options exist for remediating brownfields that are found to contain harmful substances during the Phase II Environmental Assessment. The methods chosen may depend on the end use that is envisioned for each site.

Some common methods include:

### Excavation

- Removes contaminated soil, which is disposed of at an approved landfill
- Cleanup occurs quickly, but at high cost

### Cap

- Made of clay, concrete or similar materials and contains contamination to prevent it leaking into groundwater
- Useful when end use involves a roadway or parking lot

### Slurry wall

- Similar to a cap, but uses a blend of bentonite and water in a trench to reduce groundwater flow
- May be used when waste mass is large or poses a threat to drinking water

### Bioremediation

- Uses yeast, fungi or bacteria to convert contaminants to be less hazardous
- Beneficial for sites with fuel or VOCs
- Low cost, but requires lengthy cleanup

### Phytoremediation

- Plants are placed onsite to destroy or filter hazardous substances
- Metals, pesticides, solvents and other substances can be extracted
- Low cost, but requires lengthy cleanup

Institutional controls (ICs) are administrative or legal actions that limit the future uses of the site to control the potential for exposure to any contaminants left on site. ICs may be used in conjunction with engineering controls, such as those listed above, to prepare a site for redevelopment.

*Source: International Economic Development Council, Brownfields Redevelopment, 2002*

In Vermont, the administrative cost gap for EPA brownfields grants was partially covered by the state in 2005, with each regional commission receiving one-time assistance of \$9,000. Windham Regional Commission cites \$43,888 in unreimbursed costs on their current grant. The project management costs run about 20-25 percent of the grant.

According to Becky Basch of the Southern Windsor County Regional Planning Commission in Vermont, “Administrative costs, as defined by EPA, are not onerous. Everything but progress reports can be counted as management, but overhead costs cannot be covered.” Basch estimates that about 70 percent of personnel costs are indirect. On a \$200,000 grant, the indirect costs could be as high as \$25,000, or 12.5 percent, for their region.

Scan respondents indicated that regional development organizations use a range of funding sources and partnerships to assist with their brownfields work, including:

- State funding (grants, petroleum funds or targeted brownfields assessments)
- Foundation support
- Municipal membership dues
- HUD Community Development Block Grants (CDBG)
- HUD Brownfields Economic Development Initiative (BEDI) funding
- Economic Development Administration grants
- Tax credits (historic preservation tax credits, state cleanup programs)
- Appalachian Regional Commission (ARC) funding
- Locally appropriated funds
- Federal Highway Administration Scenic Byways and Enhancements Funds for redevelopment
- EPA cleanup grants

## **Mentoring Helps Overcome Obstacles**

Scan respondents identified several obstacles to brownfields redevelopment, including a lack of financial resources, complex clean up activities, liability concerns, redevelopment opportunities, ownership questions, inventory and lack of technical expertise. For many, the assessment process was more complicated than expected.

Few organizations reported that informal mentoring helped them find additional funding or enlist the help of consultants. However, a mentoring program that matches experienced organizations with those new to the process could use peer training to help organizations overcome intricate issues.

Ninety percent of respondents reported their states have programs to assist their regions with brownfields work. Respondents in several states also highlighted state programs that provide liability protection assistance, and some reported that various state programs assist with assessments and cleanups.

Scan respondents had varied interactions with their state programs. The state of Maine has an inventory of sites for each region which has given Kennebec Valley COG a place to start. Through an application process, the Maine Department of Environmental Protection assists communities with assessments and cleanups with \$50,000 grants to help ensure that cleanup is accomplished at the end of the project. The cleanup program is not overly competitive, but this may change as more communities become involved with brownfields redevelopment.

The Iowa Departments of Economic Development and Natural Resources have a joint brownfields revitalization program funded at \$500,000. Although monetary support is limited, the funding can help in any part of the process.

The state of North Carolina has a brownfields agreement program to establish the level of cleanup needed for the chosen end use. The state will also issue a letter of no further action, providing liability protection to the property owner.

Arkansas and Texas have voluntary cleanup programs, in which the states assist with property cleanup and then issue letters of no further action.

Based on the scan and further conversations with scan respondents, it appears there is a real need for technical assistance to new grantees about other potential funding sources. New grantees acknowledged that they were uncertain as to where to look for additional technical assistance and funding.

## Land-of-Sky Regional Council, North Carolina

Land-of-Sky Regional Council secured several grants and one revolving loan fund:

- \$200,000 EPA assessment pilot grant (2002)
- \$200,000 hazardous materials and \$200,000 petroleum grants (2004)
- \$1 million revolving loan fund (2004)
- Land-of-Sky manages and administers two \$200,000 cleanup grants for two publicly-owned sites

The Council has also leveraged \$50,000 from EDA, covering lead and asbestos testing, marketing and infrastructure analysis. Land-of-Sky also leveraged \$16,500 in matching grants from a local economic development group.

Original Structure	Reuse Vision	Site Ownership
Landfill	Housing	Publicly held by municipality via annexation
Cotton mill	Mixed Use (business and housing)	Redevelopment non-profit
Hosiery mill	Cultural Arts Center	Publicly held by a municipality
Wood treatment facility	Town center with town hall, library and mixed use development	Publicly held by a municipality
Paper mill	Industrial park	Privately held
Ice manufacturing plant	Mixed use including hotel, condos and river-front businesses	Privately held
Mica processing plant	Residential housing and green space	Privately held
Recycling facility	Mixed use commercial development	Privately held
Above ground bulk oil storage and transfer facility	Office building	Privately held
Upholstery manufacturer	Commercial development	Privately held
Landfill (5 acres)	Recycling and resource recovery center	Privately held
Auto parts	Retail and office park	Privately held

*Twelve sites being redeveloped in the Land-of-Sky region*

Land-of-Sky officials believe their projects have resulted in \$350–500 million in economic benefits. Permanent job creation has not been measured yet, but permanent jobs and new businesses are expected once the projects proceed to redevelopment.

Most of the 12 redevelopment sites are currently in the assessment or cleanup phases, and 50 temporary redevelopment and construction jobs have been created.

Key issues facing the Council include the EPA brownfields grant administrative costs prohibition, the stigma of contaminated sites, explaining how the program works and the differences between brownfields and other contaminated sites.

In 2005, Land-of-Sky established the RLF and has five years to lend \$1 million. Sixty percent of the council's revolving loan fund (RLF) will be used for hazardous materials sites and 40 percent for petroleum sites.

A positive outcome for Land-of-Sky, due to its status as an EPA brownfields grantee, has been the opportunity to work closely with the North Carolina brownfields program. A state employee is now housed in their office because 95 percent of projects in the state's western area are located in the Land-of-Sky region.

The state has a separate voluntary cleanup program for petroleum. The state relies on EPA for its entire brownfields program, so EPA money is critical. The state's program determines the assessment protocol and cleanup standards and develops terms of liability for cleanup. EPA recognizes the state's authority in these areas.

## Northwest Piedmont COG, North Carolina

The City of Winston-Salem, North Carolina received EPA brownfields job training funds, administered by the Northwest Piedmont Council of Governments (COG). The COG manages the marketing and recruitment for the class, including registering participants, case management and job placement.

The COG enrolls participants in the workforce development program and EPA funding pays for participants to attend the brownfields training sessions, held annually since 2002. The EPA grant allows the COG to pay for child care or transportation through the Workforce Investment Act, a program also administered by the COG.

The partnership involves Northwest Piedmont COG, Forsyth Tech Community College, the City of Winston-Salem and EPA. The partners have leveraged additional resources to ensure community buy-in, including \$300,000 in community resources (from the COG, the city, the college and the environmental community) and \$80,000 of staff in-kind services. The COG offers staff time and on-the-job training, while the college offers staff time and use of their classrooms rent-free for four years. Leveraged funds cover administrative costs. Careful management has allowed the initial grant to cover four years' of courses, rather than two. The program received another two-year EPA Brownfields Job Training award in 2005.

The intent of the original grant was to teach up to 30 people over two years; 73 students have already gone through the program, and in early 2006, a new class started with 20 students. The goal is to recruit students from

brownfields target areas and from populations of unemployed, dislocated and underemployed workers. This region has a high percentage of dislocated workers from furniture, textile and tobacco industries, and the unemployment rate is higher than the national average.

Courses include soil classification, reading and scaling maps, remediation technologies, groundwater regulatory programs, and conducting environmental assessments and All Appropriate Inquiry. The program hosts a job fair in which an employer is assigned to each student, and private companies, quasi-public agencies, consultants and contractors donate their time and expertise to the program.

After completing the courses, graduates receive a certificate in one of a variety of subjects, such as job site hazards, hazardous materials related to transportation, asbestos worker training, or lead and mold awareness.

Students have access to five groundwater monitoring wells. In addition, they complete two days of job-shadowing to conduct field observations. Recycling, site reuse and cleanup are study concentration areas. Students can complete 16 hours of field time learning about alternative methods of cleanup such as phytoremediation, uses for methane gas at landfills, green cleaners and bioremediation.

The program costs \$5,000 per student, which covers the training and equipment. Program outcomes have been positive, with average wages for graduates rising from \$8.50/hour in 2002 to over \$12/hour in 2005.



Students practice soil classification and hone problem solving skills through courses in math and science subjects (left and center). After completing training, they can earn certificates such as Hazardous Waste Operations and Emergency Response (right).

### Association of South Central Oklahoma Governments, Oklahoma

**B**laine Smith, Executive Director of the Association of South Central Oklahoma Governments (ASCOG), reports ASCOG is currently working on more than 100 brownfields sites. These sites range from former public housing to machine shops, plating shops, old refineries, former oil sites (drilling), former railroad maintenance facilities, clothing manufacturing facilities, meth labs, hospitals and nursing homes.

A former public housing site in the small community of Frederick will become a soccer field and general recreation area following a county-funded cleanup. ASCOG contracted with the U.S. Soccer Foundation to develop plans for the site. A former plating company site, where barrels of contaminants were dumped and caught fire, was assessed and cleaned up by the county. A hospital site in Comanche County, abandoned for 30 years, is now owned by the Kiowa, Comanche and Apache Intertribal Land Use Committee, and may be transformed into a senior center.

Administrative costs are covered by the Kiowa and Comanche tribes, the Apache Intertribal Land Use Committee and the Duncan Area Economic Development Foundation. Smith estimates that the administrative costs are about \$20,000 each year. For other general funding, the Oklahoma Department of Environmental Quality helps fund Phase II assessments at no cost to the region.

ASCOG has been able to access funds from the Rural Economic Action Plan (REAP), a \$15 million annual state funded program, available to communities and unincorporated areas with less than 7,000 people. These communities have small tax bases and are not able to generate income to fund brownfields projects. Sixty-nine of the 72 communities served by ASCOG meet the REAP population criteria. Of the \$15 million available each year through the REAP program, ASCOG receives \$1.5 million (the funding level is not constant from year to year).

ASCOG's two major brownfields impediments are property ownership and liability. In most cases, the original owner is not able to be located and prior acquisitions have not enabled landowners liability relief.

Most of the region's Phase I assessments are completed in-house by the COG. Phase II assessments and cleanups are contracted out to consultants. The county and state typically help pay for cleanups and assessments. The COG's revolving loan fund will be used mainly for redevelopment. Smith explains, "Most of our sites are relatively small, so the majority of the work can be done at the local or county level."



### Hagar Pant Factory

This 33,531 sq. ft. facility, owned by the Lawton Chamber of Commerce, was once a clothing manufacturing facility but has been vacant since the early 1990s. Manufacturing firms showing interest in purchasing the building were dissuaded because the building's low ceilings prevented forklifts from performing lifts. In October 2004, Fort Sill National Bank (FSNB) purchased the building for a subsidiary company to be used as a nationwide storage center, customer call center and data processing facility. With the assistance of ASCOG, environmental remediation cost \$27,000 and was completed within 30 days. FSNB took possession of the building in January 2005 and began a \$1 million total reconstruction of the interior and addition of a parking lot and outside lighting. Approximately 200 employees will be hired by the end of 2006. There will eventually be almost 300 full-time employees, with an average salary of \$20,000 a year with benefits.

# Superfund Successes

## West Central Arkansas Planning and Development District, Arkansas

**T**he West Central Arkansas Planning and Development District (WCAPDD) redeveloped a lumber mill in Plainview, Arkansas.

During the remediation and redevelopment of this Superfund site, WCAPDD was able to carve out a non-contaminated piece to be redeveloped into a small industrial park for the City of Plainview. The site was once home to Plainview Lumber Company, which declared bankruptcy in October 1986 and abandoned the site. The property was then transferred to the state commissioner of lands, and the city eventually became the owner due to delinquent taxes. Initial EPA funding of \$100,000 allowed the city to manage the cleanup and reuse of the site which now houses a steel fabrication facility.

This was the only site in the city available for industrial development. WCAPDD has received two economic development grants, totaling over \$1.2 million: \$763,000 from EDA and about \$500,000 from the Arkansas Department of Economic Development. The funds were used to develop the industrial building and the infrastructure needed prior to construction of the plant.

The project created 25 new jobs. The new industrial park generates tax revenues and the city earns rental income from the building. The income is used for further economic development activities.

WCAPDD assisted the city in the economic development process and was a liaison between the city and funding agencies throughout the redevelopment phase. This success has encouraged WCAPDD to consider other sites for redevelopment.



*Barrels await remediation at this Superfund site (left). The final part of the redevelopment project was to build a new industrial park (right).*

## West Michigan Shoreline Regional Development Commission, Michigan

**T**he West Michigan Shoreline Regional Development Commission (WMSRDC) has successfully redeveloped several brownfields properties.

A 200-acre former chemical company site in Muskegon was one of the nation's top 10 Superfund sites because of significant dumping. Cleaned up with state and EPA Superfund and Resource, Conservation and Recovery Act (RCRA) funding, the state transferred ownership to the county but prohibited development beyond a certain depth below the surface (to avoid disturbing contaminated groundwater) and on the most contaminated 15 acres. Currently, a \$5 million business park is being built. The Economic Development Administration (EDA) granted WMSRDC \$2.5 million for infrastructure. The Cordova Business Park will provide 500–800 new jobs.

The Amazon building, a former knitting mill also in Muskegon, was redeveloped into residential housing. To make it financially feasible to redevelop, the developer received Section 8 HUD subsidies. About 25 percent of the housing is currently Section 8 affordable housing.

The region's most notable redevelopment is the Heritage Landing park site. This site now provides seasonal jobs and attracts more than a million people over 10 days during its Summer Celebration music festival. The impacts, while not quantified, are felt regionally. Events held at Heritage Landing account for 20–25 percent of the county's total annual hotel bed tax levies of \$780,000.

WMSRDC has initiated Michigan's first \$100,000 Brownfields Inventory and Plan for Implementation, funded in part by the Michigan Coastal Management Program in the Michigan Department of Environmental Quality, through a grant from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce and the Economic Development Administration. Phase I is a comprehensive inventory of brownfields in the region's five counties. Phase II is a detailed feasibility study of the reuse potential. Phase III is the identification of state and federal tools to assist with cleanup and redevelopment. Its ultimate goal, according to Executive Director Sean Dey, is "to help our communities implement the best plan for reuse." Once the Brownfields Inventory and Plan for implementation is completed, the results will be integrated into the CEDS document.

## Sage Community Resources/Reuse Idaho Brownfields Coalition, Idaho

Sage Community Resources, with the five other councils of government (COGs) in Idaho and the Idaho Department of Environmental Quality (IDEQ), formed the Reuse Idaho Brownfields Coalition. The coalition secured a \$3 million EPA brownfields revolving loan fund (RLF) grant in May 2005.

According to the Economic Development Administration, 74 percent of Idaho's regions meet the federal "area distress" criteria based on per capita income and unemployment rates. Much of Idaho's rural unemployment is related to a downturn in natural resource sectors. The state's rural communities are struggling to reuse former lumber mill sites. In the past decade, the Boise Cascade Corporation closed its lumber mills, stripping numerous cities of their primary employer and leaving abandoned sites. Numerous mining operations have closed, leaving communities with damaged properties. IDEQ and EPA assessed over 30 brownfields in 2004, and IDEQ is currently developing a statewide inventory of up to 300 sites.

Sage will administer and manage the EPA RLF. The RLF is a consortium effort that benefits the entire state. Kathleen Simko, Sage Community Resources President, reports the state has been a great partner, providing valuable technical assistance. "Once their implementation plan is received and accepted, the consortium will begin to make loans. Communities already are lined up to apply," states Simko.

Sage worked with IDEQ to overcome the barriers that other brownfields RLFs have faced. The coalition's loans will be tied to IDEQ's voluntary cleanup program to ensure loans are made to projects that are moving forward, and loans will be paid more quickly in this program. A no-interest loan will be offered as an incentive for quicker loan repayment. IDEQ is taking the lead on the inventory process and will be training and using a group of community volunteers to help identify potential sites to learn which sites have been (or are being) assessed and which have reuse plans, resulting in a list of loan-ready communities. While half the RLF funding is intended for petroleum and half for hazardous materials, once the money is repaid, it can be used to allow additional flexibility.

Sage is exploring funding options to cover administrative costs and to determine programmatic overlaps. Simko says

one alternative could be to charge fees for loans to help cover administrative costs. However, they do not want to make the cost of being a part of their RLF prohibitive.

Sage also provides grant administration and management help to Washington County, an EPA brownfields assessment grantee within the Sage service area, which has helped the county offset administrative costs. Sage provides this type of assistance at a discount to its member communities. This arrangement gives Sage perspective on the projects to which they will be making loans.

Most of Sage's projects are rural in nature and are often part of downtown planning. Due to Idaho's economic dependence on natural resources, many sites are mine-scarred or timber lands. A complication is that much of this land may be under the auspices of the Bureau of Land Management or Park Service.

## Cleaning Up the Dry Cleaner

Hazardous substance grant funds have been used to perform an environmental assessment of dry cleaning site in the commercial district of the City of Weiser. Once the commercial hub of the upper Snake River Valley, Weiser is struggling to diversify and create jobs. The city's poverty rate exceeds 15 percent, and its per capita income of \$16,847 is well below the state's average (\$24,506). The blight of the site detracts from the city's potential to attract new businesses. A tetra-chloroethylene groundwater plume that may have originated at the site threatens domestic wells. The initial reuse plan was for a parking lot, but Simko hopes there may be more interest in using it for economic development.

# Brownfields Achievements

## Southern Windsor County RPC, Vermont

**S**outhern Windsor County Regional Planning Commission (RPC) has been cleaning and redeveloping brownfields since 1999. Most of the sites are located in downtown areas and are part of revitalization efforts. Some sites have been completed, while others are in process as a result of complications related to managing risk and liability. Some site owners may be reluctant to become involved in assessment or cleanup.

The RPC partnered with the town of Windsor, Springfield Regional Development Corporation, the Burnham Estate, Country Real Estate and Lyme Investment Corporation to assess and clean up a property that once housed a dump site, and now houses an office building. An accounting firm is now located at that site, employing at least eight people. The Burnham site had a quick turnaround due to the involvement of a realtor and the estate's executor. The executor funded the site assessment. Once the assessment was complete and the property received a letter of no further action from the state brownfields program, the site promptly sold.

Working with the state agency presented some challenges in the past, but conditions have improved. The Redevelopment of Contaminated Properties Program (RCPP) could be adjusted to encourage more private sector involvement, according to Becky Basch, Assistant Director at Southern Windsor County RPC. "Developers are often uninterested because of liability issues. The state takes on a lot of risk through the RCPP program, but it lacks the insurance to manage the risk. As a result, testing and cleanup are conservative." Despite structural challenges, Southern Windsor County RPC is producing results.

Along with greater numbers of jobs, the results of completed brownfields projects in the region can be seen in the increased interest on the part of developers in downtown properties, rising property values and downtown revitalization.



Officials tour the New Hampshire brownfields site where an engine and other petroleum contaminants were left behind at the abandoned car repair facility.

## North Country Council, New Hampshire

**I**n 2004, North Country Council (NCC) in Bethlehem, New Hampshire received a \$200,000 EPA Assessment grant for sites contaminated by petroleum. With the funding, the Council has conducted five Phase I and five Phase II assessments of brownfields sites. Two sites are being redeveloped immediately; plans have not yet been made for the remaining sites.

One site was previously an illegal car repair operation at a residence, and the City of Berlin was assuming ownership to cover unpaid taxes. The site contained engines and containers of waste oil in the cellar, garage, driveway and yard. Cleanup entailed removing 11 tons of soil contaminated by motor and fuel oil. NCC assisted city officials by collecting and analyzing samples and advising them on environmental issues prior to the tax sale.

Brownfields redevelopment is important to the 51 towns and villages in the North Country because the region has lost large numbers of manufacturing jobs since the 1970s and 1980s, particularly in the paper and pulp mill industries. The region also has a higher poverty rate than the rest of the state, so jobs created by redevelopment projects will benefit residents.

NCC Assistant Director Jeff Hayes says, "Brownfields assessments gauge the viability of reuse for properties like old industrial mill structures. There are a lot of them in downtown areas. These brownfields sites affect the business environment of the towns and create redevelopment issues." To further its brownfields program, NCC is seeking additional funding for sites contaminated by both petroleum and other substances.



## Windham Regional Commission, Vermont

The Windham Regional Commission (WRC) has worked with many brownfields sites, including the Bellows Falls Waypoint Interpretive Center and the Brattleboro multi-modal transportation center. Both projects are EPA success stories with documented results.

The Brattleboro property did not require cleanup. The downtown property, consisting of the Bradley Lot (the brownfields property) and the Bushnell Block (an adjoining lot), came to life again as a 120,000 square foot multi-modal transit facility including over 300 parking spaces, a passenger waiting area, public restrooms, a small parking enforcement office and commercial space. The much needed transportation center helps maintain a vibrant downtown Brattleboro. This project has helped create almost 150 construction and redevelopment jobs.

Funding came from a variety of local, state and federal sources, including a \$3.5 million congressional award from the Federal Transit Administration, a local bond, the State Downtown Program in which the town receives a \$100,000 grant each year for 10 years, and \$316,000 in state transportation enhancement funds.

The Bellows Falls Waypoint Interpretive Center bridges two communities separated by the Connecticut River. Part of the Connecticut River Byway project, the BFWIC is one of 10 centers alongside the river from Massachusetts to Canada. “The purpose of the Byway is to get people off the interstate and exploring the Valley’s back roads,” says Susan McMahon, WRC’s Senior Planner.

Additional benefits include the creation of 70 new construction jobs. Funding for facility construction came from the Federal Highways Scenic Byway Program, Housing Vermont, Vermont Agency of Transportation Enhancement Grants, the Windham Foundation, the Connecticut River



Bellows Falls Waypoint Interpretive Center. Photo by Shawn Sullivan, WRC

Joint Commissions Partnership program and the Southern Vermont Regional Marketing Organization.

Another large site on the Connecticut River is the International Paper mill. The project is complicated because the land is owned by the historical society, and the building is owned by the town. Access to the site is limited, complicating end use potential. The project centers on community open space needs and provision of much needed access to the river.



Farmers Market at the Bellows Falls Waypoint Interpretive Center

Other redevelopment sites in the region include:

- A former garage (to become a mixed use site with youth services, retail, residential)
- A dairy transfer/oil company storage site (to become an Italian deli and grocery)
- A pipe organ factory (to become a pipe organ museum, housing and office space)
- A gas station/former paper mill (now senior housing)
- A former grist mill/warehouse (to become housing/retail)

These sites are typically small and need little cleanup. Engineering controls (such as soil removal and paving), land use controls and regulatory controls will be used. When testing is almost finished, the state allows construction to begin by using institutional controls.

These projects share a focus on downtown and village revitalization, one of WRC’s priorities. According to McMahon, “Secondary development around the sites is extremely important. Bellows Falls had seen hard times in the past. More secondary development has resulted from the interpretive center. These projects have allowed WRC to work effectively with private developers. In rural America, small developers make a difference.”

Project results range from job creation and transportation infrastructure to historic preservation at and redevelopment in village areas.

# Redevelopment Provides Opportunities

## South Florida Regional Planning Commission, Hollywood, Florida

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In 1997, the South Florida Regional Planning Council (SFRPC) began the Eastward Ho! Brownfields Partnership to reduce development pressure on sensitive lands in the region's western area. It was designated an EPA National Showcase Community in 1998. SFRPC partnered with local, state and federal government stakeholders and private companies to promote brownfields redevelopment. The initiative is currently sustained by funding from state and local sources. SFRPC also received \$2.2 million from EPA to capitalize a revolving loan fund, which so far has assisted two businesses with remediation.

The organization estimates that 2,100 brownfields sites exist within the three-county region, and about 390 have received a Phase I or more detailed environmental assessment. Of those, 75 sites need no further action and 20 have already undergone remediation. Several sites are already being redeveloped, or plans are underway. Terry Manning, Senior Planner and Brownfields Coordinator for SFRPC, says, "We're finding that any land that is available becomes a prime target for development, because we're out of land."

That makes affordable housing difficult to find. Several sites have become housing for low-to moderate-income households. Other projects include commercial centers that hire local residents and mixed-use neighborhoods that offer residential and commercial, office space, community centers, transit hubs and health care facilities. Redevelopment is expected to provide the region with at least 2,000 jobs and 600 new housing units.

Manning says that brownfields redevelopments have noticeable spillover effects as well. "Generally, communities have seen positive effects from redevelopment. They're getting the eyesores of the neighborhood back into productive use, and then that spurs other development."



## Beartooth RC&D, Joliet, Montana

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The Beartooth Resource Conservation and Development Area in south central Montana has a rich history of mining and agriculture, but many businesses that supported those sectors have closed, leaving vacant sites. Tourism and recreation are now the growing segments of the economy. Infill development on brownfields sites is a significant component of the region's development strategy, since infill limits growth into the open space that residents and visitors value.

Beartooth is collaborating with local development organizations, local, state and federal government entities and private businesses to use brownfields redevelopment to stimulate local economic revitalization. With a 2004 EPA \$200,000 grant, Beartooth has completed three Phase I assessments and will soon complete two more.

These assessments were conducted at high profile sites within the region, enhancing community members' interest in redeveloping brownfields. This has aided Beartooth in compiling an inventory that categorizes brownfields sites by county, underground storage tank release sites, state superfund sites, Water Quality Act sites, voluntary cleanup sites, abandoned mine sites and other leaks.

## Organization Contact Information

**Ark-Tex Council of Governments**, Diane Atkinson, Environmental Resource Planner  
122 Plaza West, Texarkana, TX 75501; 903.832.8636; [www.atcog.org](http://www.atcog.org)

**Association of South Central Oklahoma Governments**, Blaine Smith, Executive Director  
802 Main Street, Duncan, OK 73533; 580.252.0595; [www.ascog.org](http://www.ascog.org)

**Beartooth RC&D**, Chris Mehus, Community Development  
PO Box 180, Joliet, MT 59041; 406.962.3914; [www.beartooth.org](http://www.beartooth.org)

**City of Winston-Salem**, Tim Binkley, Job Training Pilot Coordinator  
PO Box 2511, Winston-Salem, NC 27102; 336.747.7366; 336.724.9350; [www.ci.winston-salem.nc.us](http://www.ci.winston-salem.nc.us)

**Kennebec Valley Council of Governments**, Ken Young, Executive Director  
17 Main Street, Fairfield, ME 04937; 207.453.4258; [www.kvcog.org](http://www.kvcog.org)

**Land-of-Sky Regional Council**, Ron Townley, Solid Waste/Brownfields Team Leader, 25 Heritage Drive,  
Asheville, NC 28806; 828.251.6622; [www.landofsky.org](http://www.landofsky.org)

**North Country Council, Inc.**, Jeff Hayes, Assistant Director  
107 Glessner Road, Bethlehem, NH 03574; 603.444.6303; [www.nccouncil.org](http://www.nccouncil.org)

**Northwest Piedmont Council of Governments**, Mary Anne Forehand, Workforce Operations Supervisor  
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**Southeast Iowa Regional Planning Commission**, Andrea Chase, Environmental Planner  
200 Front Street, Suite 400, Burlington, IA 52601; 319.753.5107; [www.seirpc.com](http://www.seirpc.com)

**Southern Windsor County Regional Planning Commission**, Rebecca Basch, Assistant Director  
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**West Central Arkansas Planning and Development District**, Dwayne Pratt, Executive Director, 835 Central  
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**Western Michigan Shoreline Regional Development Commission**, Sean Dey, Executive Director  
316 Morris Avenue, Suite 340, PO Box 387, Muskegon, MI 49443-0387; 231.722.7878; [www.wmsrdc.org](http://www.wmsrdc.org)

**Western Piedmont Council of Governments**, Susan Berley, Community Development Administrator  
PO Box 9026, Hickory, NC 28603; 828.322.9191; [www.wpcog.org](http://www.wpcog.org)

**Windham Regional Commission**, Susan McMahon, Senior Planner  
139 Main Street, Suite 505, Brattleboro, VT 05301; 802.257.4547; [www.rpc.windham.vt.us](http://www.rpc.windham.vt.us)

## Regional Development Organizations and EPA Brownfields Program 1998-2006: 46 RDOs Now Administering \$27.6 million EPA Brownfields Grants

Organization	State	Types of Grant	Total Amount	Years
Fairbanks North Star Borough	AK	Assessments, Cleanup	\$748,398	2004, 2005, 2006
Capital Region Council of Governments	CT	Petroleum, Assessments	\$400,000	2004, 2005
South Central Regional Council of Governments (Regional Growth Partnership)	CT	Assessments, Petroleum assessments, RLF	\$1,400,000	2001, 2003, 2006
Valley Council of Governments (Naugatuck River Valley) and Valley Regional Supplement Planning Agency	CT	Petroleum, Assessments	\$475,000	2000, 2004, 2005
South Florida Regional Planning Council (Coalition with Miami-Dade County and the Cities of Miami and Ft. Lauderdale)	FL	Assessments, RLF	\$600,000	2000, 2001
Southeast Florida Regional Planning Council	FL	Assessments	\$200,000	1998
Treasure Coast Regional Planning Council	FL	Petroleum	\$200,000	2003
Southeast Iowa Regional Planning Commission	IA	Assessments, Petroleum	\$400,000	2004
Reuse Idaho Brownfields Coalition (Coalition partners include all six Economic Development Districts and the Idaho Department of Environmental Quality) SAGE Community Resources is the EDD administering	ID	Assessments, Petroleum	\$3,000,000	2005
Acadiana Regional Development District (with South Central Planning and Development Commission)	LA	Petroleum assessments	\$200,000	2006
Northwest Louisiana Council of Governments	LA	Assessments	\$152,429	2004
Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard and St. Tammany Parishes	LA	RLF, Petroleum	\$1,200,000	2001, 2004
South Central Planning and Development Commission	LA	Greenspace/Assessments	\$650,000	2002, 2006
Southeastern Louisiana Regional Planning Commission	LA	Assessments	\$200,000	1999
Berkshire Regional Planning Commission	MA	Petroleum, Assessments	\$400,000	2004, 2005
Franklin Regional Council of Government, Massachusetts (Coalition with Towns of Colrain and Greenfield)	MA	Assessments, RLF	\$800,000	1999, 2001, 2002, 2004
Merrimack Valley Planning Commission	MA	Assessments, Petroleum assessments	\$800,000	2003, 2006
Montachusett Region Planning Commission	MA	RLF, Assessment, Supplement	\$1,050,000	1998, 2000, 2001, 2004
Pioneer Valley Planning Commission (Coalition with the Cities of Springfield, Chicopee and Westfield)	MA	Assessments, Petroleum assessment	\$1,050,000	1998, 1999, 2004, 2006
Androscoggin Valley Council of Governments	ME	Assessments	\$200,000	2005
Kennebec Valley Council of Governments	ME	Assessments	\$200,000	2005
Southern Maine Regional Planning Commission	ME	Assessments, petroleum assessments	\$600,000	2004, 2006
Beartooth RC&D Area, Inc.	MT	Assessments	\$200,000	2004
City of Winston-Salem (Northwest Piedmont COG runs the job training program's job placement portion)	NC	Job Training	\$383,000	2001, 2005
Land-of-Sky Regional Council	NC	Assessments, Petroleum assessments, RLF	\$2,000,000	2002, 2004, 2006
Piedmont Triad Council of Governments	NC	Assessments	\$200,000	2006
Western Piedmont Council of Governments	NC	Assessments	\$200,000	2005
Nashua Regional Planning Commission	NH	Petroleum	\$200,000	2004
North Country Council, Inc.	NH	Petroleum	\$200,000	2004
Southwest Region Planning Commission	NH	Assessments, Petroleum	\$516,000	2003, 2005
Association of South Central Oklahoma Governments	OK	Assessments, Supplement, RLF	\$1,350,000	2004
Catawba Regional Council of Governments	SC	Assessments	\$400,000	2002, 2006
Ark-Tex Council of Governments	TX/AR	Assessments	\$200,000	2005
Rio Grande Council of Governments	TX/NM	Assessments, Supplement	\$350,000	1998, 2001
Addison County Regional Planning Commission	VT	Petroleum assessments	\$200,000	2006
Bennington County Regional Commission	VT	Petroleum	\$200,000	2004
Central Vermont Regional Planning Commission	VT	Assessments, Petroleum assessments	\$600,000	2003, 2006
Chittenden County Regional Planning Commission	VT	Petroleum assessments	\$200,000	2006
Northeastern Vermont Development Association	VT	Petroleum assessments	\$200,000	2006
Northwest Regional Planning Commission	VT	Assessment, Petroleum assessments	\$600,000	2003, 2006
Rutland Regional Planning Commission	VT	Assessment, Petroleum assessments	\$600,000	2003, 2005, 2006
Southern Windsor County Regional Planning Commission	VT	Assessments, Petroleum, RLF, Supplement	\$1,760,000	1999, 2001, 2002, 2004, 2006
Two Rivers-Ottawaquechee Regional Commission	VT	Assessments, Petroleum	\$600,000	2001, 2004, 2005
Windham Regional Commission	VT	Assessments, Supplement, Petroleum assessments	\$950,000	2000, 2002, 2003, 2006
Brooke-Hancock-Jefferson Metropolitan Planning Commission	WV	Assessment	\$400,000	2003, 2005
West Virginia Region I Planning and Development Council	WV	Assessment	\$200,000	2006
<b>46 Regional Development Organizations</b>			<b>\$27,634,827 Total</b>	

*Sources: The U.S. Economic Development Administration (EDA), the Office of Management and Budget (OMB), U.S. Census Bureau, the Rural Policy Research Institute (RUPRI), the Environmental Protection Agency (EPA) and the National Brownfields Association.*

**All Appropriate Inquiry Rule** - This rule was negotiated and directed under the Brownfields Law 2002. It refers to the requirements for assessing the environmental conditions of a property prior to its acquisition, be it purchase or donation, and clarifies the requirements necessary to establish the innocent landowner defense under CERCLA in addition to providing Superfund liability limitations for bona fide prospective purchasers and contiguous property owners. Among the requirements added to CERCLA is the requirement that such parties undertake "all appropriate inquiry" (AAI) into prior ownership and use of a property at the time at which a party acquires the property.

Bona fide prospective purchasers who buy property after January 11, 2002 must perform AAI prior to purchase and may buy knowing, or having reason to know, of contamination on the site and enjoy the limitation on liability provided by the new definition. Contiguous property owners whose property is not the source of contamination, but is adjacent to a facility that is the source of contamination found on their property must perform AAI prior to purchase and buy not knowing, or having reason to know, of contamination on the site.

Innocent purchasers/landowners must perform all appropriate inquiry prior to purchase of a property and must buy without knowing, or having reason to know, of contamination on the property. The Brownfields Law also establishes that site characterizations or assessments conducted by entities with the use of brownfields grants awarded under CERCLA Section 104(k)(2)(B)(ii) must be conducted in accordance with the AAI standards established under the law to be overseen by an environmental professional.

**Assessment** - Environmental professionals conduct assessments to determine contamination presence and characterization. Two phases of assessments identify the potential for hazardous releases and the severity of contamination. The Phase I environmental assessment investigates the historical use of the site and tests for various contaminants to determine the likelihood of contamination and possible levels of severity. The Phase I assessment determines whether or not a Phase II assessment will be needed. If the Phase I assessment reveals no suspect prior usage or onsite hazardous issues, then there is likely no need for a Phase II assessment, and redevelopment planning or implementation can begin.

When the Phase I assessment indicates that further investigation is needed, a Phase II assessment is conducted. The Phase II assessment should accurately characterize the levels or volume of contamination and the type of contaminants. Phase II assessments are sometimes divided into levels of investigation. Proper documentation of the investigation is important. The Phase II assessment often is a requirement for parties that receive or apply for private and public funding. Also, to legally establish liability relief or innocent landowner defense through the Brownfields Law, the Phase II documentation must be in accordance with the all appropriate inquiry rule or the American Society for Testing and Materials (ASTM) standards E1527-05 (applicable after November 2006). The closing Phase II assessment report sometimes is useful for determining liability.

**Brownfields** - In Public Law 107-118 (H.R. 2869), Small Business Liability Relief and Brownfields Revitalization Act signed into law January 11, 2002, Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601) is amended by the following expanded definition: "brownfields site" means 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 and includes land contaminated by petroleum or petroleum products, a controlled substance as defined in the Controlled Substance Act or mine-scarred land.

**Comprehensive Economic Development Strategy (CEDS)** - Tool used by Economic Development Administration planning grantees to address economic opportunities and constraints. The process was established by the EDA Reform Act of 1998, as amended by the Public Works and Economic Development Act of 1965, to create jobs, foster stable and diversified economies and improve living conditions.

**Economic Development Administration (EDA)** - EDA, under the Department of Commerce, was established through the Public Works and Economic Development Act of 1965 (42 U.S.C. 3121), as amended, to generate jobs, retain existing jobs and stimulate industrial and commercial growth in economically-distressed areas of the United States. Assistance is available to rural and urban areas with high unemployment, low income or other severe economic distress.

**Engineering Controls** - Engineering controls are designed to minimize exposure to residual materials on a brownfields site that may still be hazardous. Examples of engineering controls would include exhaust systems and wetting systems to control dust. Engineering controls remove the hazard, either by initial design specifications or by applying methods of substitution, minimization, isolation or ventilation.

**Environmental Insurance** - Environmental insurance is intended to limit liability associated with the discovery and cleanup of contamination on brownfields. A growing number of types of environmental insurance are available, including pollution liability, cleanup cost cap, finite risk and secured creditor. Environmental insurance may reduce the uncertainties of brownfields redevelopment projects and limit cleanup cost exposures. It can provide a strong basis for quantifying risk, a condition frequently demanded by lending institutions, and is often a requirement of federal and state grant programs. Several states offer assistance for environmental insurance coverage. Many grant programs, such as the EPA brownfields grant program, allow grantees to purchase coverage.

**Environmental Justice** - Fair treatment for people of all races, cultures and incomes, regarding the development of environmental laws, regulations and policies. Under Executive Order 12898 enacted in 1994, federal agencies are directed to address the concern that minority populations and/or low-income populations bear a disproportionate amount of adverse health and environmental effects.

**Environmental Professional** - The EPA All Appropriate Inquiry Rule defines the environmental professional, the party conducting the assessment, as someone who possesses sufficient specific education, training and experience necessary to use professional judgment to develop conclusions about conditions indicative of releases or threatened releases of hazardous substances at a property. In addition, an environmental professional must have a state or tribal-issued certification or license and three years of relevant full-time work experience; or have a Baccalaureate degree or higher in science or engineering and five years' experience; or have 10 years' experience. Individuals who do

# Glossary of Terms

not meet these requirements may still participate in all appropriate inquiries. However, they must work under the supervision of an individual who does meet the requirements for an environmental professional.

**Environmental Protection Agency Brownfields Program (EPA Brownfields)** - EPA formally launched its Brownfields Initiative in 1995. Over several years, EPA has provided technical and financial assistance for brownfields revitalization based on four goals: protecting the environment, promoting partnerships, strengthening the marketplace and sustaining reuse. This approach has enabled states, tribes, local governments and other stakeholders to assess, clean up and reuse brownfields. Since 1995, the investment in EPA's Brownfields Program has leveraged more than \$5 billion in cleanup and redevelopment and generated more than 25,000 jobs.

In 2002, Congress enacted the Small Business Liability Relief and Brownfields Revitalization Act (the Brownfields Law). In 2003, EPA awarded over \$120 million in grants under the Brownfields Law for assessment, cleanup, revolving loan funds, job training and state and tribal response programs. In implementing the Brownfields Law, EPA has worked with NADO and other organizations to ensure a fair distribution of funding between urban and nonurban areas.

**Institutional Controls (ICs)** - ICs are non-engineered instruments, such as administrative or legal controls. ICs help reduce the potential for exposure to contamination, such as when residual contamination remains onsite at a level that does not allow for unrestricted use.

**Redevelopment** - Refers to the planning and reuse of brownfields to protect human health and the environment. Redevelopment either promotes economic development or enables the creation or preservation of parks, greenways, undeveloped property, open space, or other property used for nonprofit purposes pursuant to proper assessment and/or cleanup of hazardous substances, pollutants or contaminants.

**Regional Development Organization (RDO)** - More than 500 RDOs in the U.S. work daily with local governments, businesses, academic institutions, nonprofit organizations and others engaged in community and economic development. They are multi-jurisdictional and manage an array of programs and services, including economic planning, job training, small business development and finance, transportation planning, water/wastewater management, coordinating emergency services, aging programs, youth development and various initiatives aimed at promoting employment opportunities. RDOs are also known as area development districts, councils of government, planning and development districts, economic development districts, economic development commissions, local development districts, regional planning commissions or regional development councils.

**Resource Conservation and Recovery Act (RCRA) Brownfields Site** - Congress enacted RCRA in 1976 to protect human health and the environment from the hazards of waste disposal to conserve energy and natural resources, reduce the amount of waste generated and ensure that wastes are managed in an environmentally sound manner. In 1984, Congress enacted the Hazardous and Solid Waste Amendments (HSWA), which expanded RCRA's scope; including the creation of a corrective action program. Under this program, owners or operators of treatment, storage or disposal facilities are responsible for investigating and cleaning up releases at or from their facilities, regardless of when the releases occurred. Over 6,500 facilities are subject to RCRA corrective action statutory authorities.

A Brownfield RCRA Redevelopment is a RCRA facility that is not in full use, where there is redevelopment potential, and where reuse or redevelopment of that site is slowed due to real or perceived concerns about contamination, liability and RCRA requirements. The RCRA Brownfields Prevention Initiative was established by EPA to encourage the reuse of potential RCRA Brownfields so that the redevelopment better serves the needs of the community as more productive commercial or residential development or as greenspace.

**Rural/Small Metropolitan** - The U.S. Census Bureau and the Office of Management and Budget (OMB) have three different levels of "rural," but generally speaking, "rural cities" are considered to have a population of 50,000 or less and "rural counties" are considered to be a population of less than 100,000. The 1999 United States Census further defines rural as "an area with a population density of less than 100 individuals per square mile." The Census Bureau classifies 61.7 million (25 percent) of the total population as rural, and OMB classifies 55.9 million (23 percent) of the population as non-metro-rural. According to the Census definition, 97.5 percent of the total U.S. land area is rural; according to the OMB definition, 84 percent of the land area is nonmetro-rural. There are several other definitions of rural, including frontier counties, isolated rural and micropolitan areas. Federal and state funding resources are often distributed based on an in-house definition of rural according to each department's focus, making it difficult to adopt a universal definition. States also offer various population thresholds and location restrictions relevant to defining "rural."

**Superfund site** - As of 2006 EPA has 1,244 final and proposed sites on the Superfund National Priorities List. Superfund is the Federal government's program to clean up the nation's uncontrolled hazardous waste sites. The program was established in 1980 under EPA to locate, investigate and clean up the worst ranking sites nationwide. Under the Superfund Law, EPA is able to make entities responsible for contaminated sites perform and pay for investigations and cleanup activities. EPA may also use the Superfund Trust Fund to pay for investigation and cleanups, and then attempt to get the money back from responsible parties through legal actions. Superfund sites that are successfully de-listed may be eligible for EPA brownfields program funding or various state and federal redevelopment program funding.

**Underground Storage Tank (UST)** - USTs typically contain hazardous contents such as gasoline, solvents and diesel fuel that are harmful if leaked in high concentrations. Thus, the overall goal of the EPA Underground Storage Tank Program, which began in 1985, is to protect human health and the environment through the prevention, detection and cleanup of releases from USTs. In September 2001, EPA launched its USTfields pilot initiative. Currently 34 states, the District of Columbia and Puerto Rico have approved "state" UST programs. Of the money allocated to EPA's Office of Underground Storage Tanks each year by Congress, about 85 percent goes to state programs.

The EPA petroleum brownfields funds can also be combined with state UST cleanup funds to promote the revitalization of these blighted sites, due to the Brownfields Act of 2002's expansion of the definition of brownfields to include land contaminated by petroleum or petroleum products. EPA estimates that there are 705,000 USTs nationwide that store petroleum or hazardous substances. An estimated 200,000 are abandoned gas stations and other petroleum sites – a common rural and small community brownfields site. Many policy implementation and program changes regarding USTs are now underway following the Energy Policy Act of 2005.





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