



Improving Land and Lives:

10 Years of Investment in EPA's Brownfields Job Training Program



“Through the Brownfields Job Training Program, EPA is literally putting both people and property back to work. By teaching people the skills to revitalize their own neighborhoods, we are helping improve lives and livelihoods in communities across the nation.”

—**Steve Johnson**, EPA Administrator
November 13, 2006

Purpose

This report demonstrates the benefits of EPA’s Brownfields Job Training Program and discusses the ways in which it complements broader workforce development initiatives. It also provides a historical overview of the program and talks about where the program is today. The examples in this report come from five EPA Brownfields Job Training grants.



The Tucson, Arizona Job Training graduates of 2007.

Prepared by:

SRA International, Inc. (Contract No. EP-W-07-023)
3434 Washington Boulevard
Arlington, VA 22201

Prepared for:

U.S. Environmental Protection Agency
Office of Solid Waste and Emergency Response
Office of Brownfields and Land Revitalization
Washington, DC 20460

“EPA recognizes that cleaning up brownfields sites may be only part of the larger challenge for a community that is trying to revitalize its neighborhoods. By providing job training grants, we are helping residents get the jobs that are created when the brownfields in their community are cleaned up. These grants truly help put both people and places back to work.”

—**Susan Bodine**,
Assistant Administrator for EPA’s Office of Solid Waste and
Emergency Response

Introduction

The transition from a manufacturing-based economy has created both environmental challenges and socioeconomic development opportunities for communities throughout the United States. EPA estimates that over the next 30 years, more than \$200 billion in economic activity will result from the cleanup of approximately 294,000 waste sites.

To help the often disadvantaged communities most affected by brownfields share in the benefits of this growing market, the U.S. Environmental Protection Agency (EPA) established the Brownfields Job Training Program. Through this program, EPA provides environmental cleanup and health and safety training to residents of brownfields-impacted communities who are seeking new skills and greater earning potential. The Job Training Program meets community needs in several ways: it helps clean up brownfields, spurs economic development, and creates a pool of qualified environmental technicians capable of meeting the environmental cleanup industry's demand for workers. To date, more than 4,000 individuals have graduated from EPA-funded brownfields job training programs. These graduates generally pursue three paths after graduation: 1) employment in the environmental field (approximately 2,500 nationally); 2) employment in other fields; or 3) further education.

1. 2004 EPA Report titled "Cleaning the Nation's Waste Sites: Markets and Technology Trends"

Oakland, California Job Training Program

For the Oakland Private Industry Council, an initial Brownfields Job Training grant in 1998 allowed them to implement an environmental remediation component to a workforce development organization that has been conducting job training since 1989.

Through funding and technical assistance, EPA's Brownfields Program transforms properties and surrounding communities. The Job Training Program transforms individual lives by empowering unemployed and underemployed, predominantly low-income and minority residents. Brownfields Job Training grants serve communities that receive, or have received, financial assistance from EPA for Brownfields Assessment, Revolving Loan Fund, or Cleanup competitive grants and help residents take advantage of jobs created by the assessment, cleanup and redevelopment of brownfields.

Through this link to on-the-ground brownfields assessment and cleanup activity, brownfields job training programs expand upon local workforce development efforts—training residents of brownfields-impacted communities for the environmental jobs that cleanup contractors might otherwise fill from outside the community. The EPA Brownfields Job Training Program opens the door to the environmental industry for those who are interested in entering the field. To date, EPA has funded 118 Brownfields Job Training grants totaling over \$23 million. Of the more than 4,000 who have completed the EPA-funded training, more than 2,500 obtained employment in the environmental field, earning an average starting hourly wage of \$13.88.



The Oakland Private Industry Council, receiving their Brownfields Job Training Grant in 1998.

History of the Brownfields Job Training Program

The Brownfields Program is a job generator, leveraging jobs through assessment, cleanup, and redevelopment. Within the first two years of the Brownfields Program, EPA learned from local stakeholders that there may be value in a job training program that would train residents in brownfields communities for environmental careers. Such a program would offer direct, life-changing benefits in brownfields communities, and prepare the local workforce to help transform sites addressed through the Brownfields Program's Assessment and Revolving Loan Fund grants.

The first seeds of Brownfields Job Training—and of the Brownfields Program itself—emerged in the early 1990s, reflecting EPA's growing concern for “environmental equity,” later known as environmental justice issues. Visiting the Industrial Excess Landfill Superfund site in Uniontown, Ohio, staff from EPA's Office of Solid Waste and Emergency Response (OSWER) expected the surrounding community to have benefited from job opportunities related to the site's ongoing monitoring. However, EPA staff found that all of the site-related jobs had been filled by environmental professionals from other cities, due to a lack of environmental training among the local workforce.

To correct that disparity, EPA awarded local Cuyahoga County Community College with an “Environmental Justice” Pilot grant in 1991. The lessons learned helped shape application requirements for what would eventually become Brownfields Job Training grants. EPA later targeted their Brownfields Job Training grants towards communities with active brownfields revitalization programs—ensuring that graduates would benefit from their new skills through local job opportunities. Today's Brownfields Job Training programs commonly work with area employers, modifying curricula to suit local needs and placing graduates through first-source hiring and similar arrangements.

During the initial years of the Brownfields Program, EPA had no resources allocated for job training. EPA collaborated with the Hazardous Materials Training and Research Institute (HMTRI) to offer environmental education and training program assistance to community colleges located near Superfund and other hazardous waste sites. In the mid-1990s, EPA sought the expertise of a number of federal entities with established job training programs, including the National Institute on Environmental Health Science (NIEHS). In 1996, EPA

Brownfields Job Training Program Timeline 1991 — Present

1996: EPA signs Memorandum of Understanding with the Department of Labor focusing on job training and employment opportunities related to the Brownfields Program for local youths and adults

1998: National Institute of Environmental Health Sciences establishes Brownfields Minority Worker Training Program with Brownfields Showcase Communities

September 1999: First 100 graduates obtain employment

1991

1992

1993

1994

1995

1996

1997

1998

1999

1991: Cuyahoga County Community College Environmental Justice Grant

January 1995: EPA announces the first Brownfields Pilots

1998: EPA awards first 11 Brownfields Job Training Pilots

June 1999: First 100 participants complete training

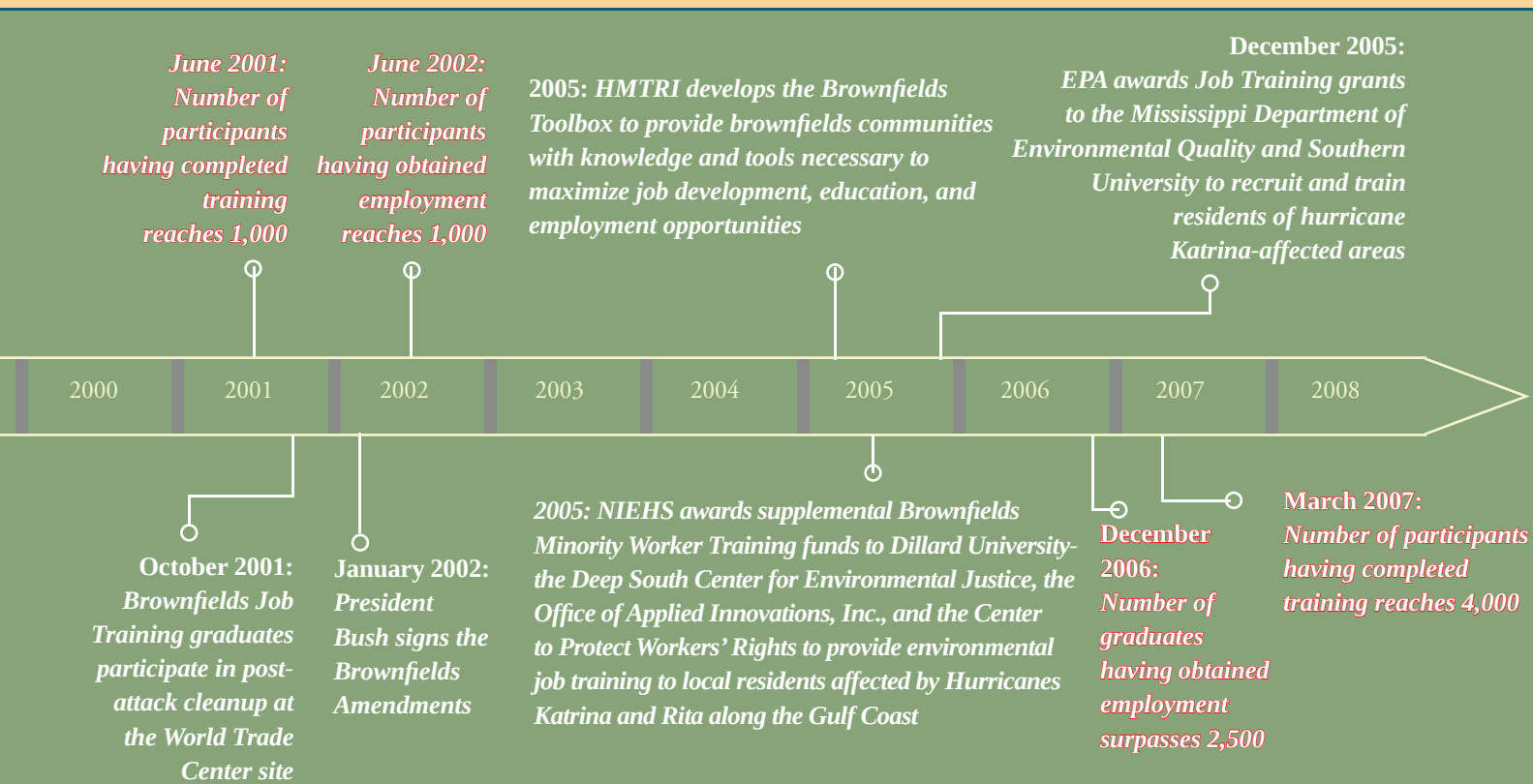
signed a Memorandum of Understanding (MOU) with the U.S. Department of Labor (DOL), to develop environmental job training programs in urban locations with DOL-funded Private Industry Councils (now known as Workforce Investment Boards).

Brownfields revitalization and environmental justice considerations are deeply connected. Through the revitalization of brownfields, idle, dilapidated, and often contaminated properties are returned to productive use, enhancing public health and safety, improving property values and aesthetics, and boosting local economies in the typically low-income, minority communities these properties had negatively affected. In 1995, EPA convened the National Environmental Justice Advisory Council (NEJAC) Waste and Facility Siting Subcommittee, to conduct public dialogues on the links between brownfields redevelopment and environmental justice. These forums led to the realization that brownfields redevelopment must be coordinated with broader strategies of job creation, training, and career development. Combining these approaches would in turn produce demonstrable benefits for communities facing environmental justice issues.

The Brownfields Job Training Program has since built upon this idea by providing grants for environmental job training, facilitating programs and partnerships that offer sustainable careers and unprecedented opportunities for residents of affected communities.

In 1997, EPA recognized that it could initiate a Brownfields Job Training Program under Section 311(b) (9) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), which specifically allowed EPA to conduct environmental job training. EPA funded its first round of Brownfields Job Training Pilots in 1998. Awarded to 11 entities including cities, community colleges, universities, and non-profits, these pilots were designed to complement the Brownfields Program's four main goals: protecting the environment, promoting partnerships, strengthening the marketplace, and sustaining reuse.

When the first program graduates quickly found jobs with salaries ranging from \$14-30 per hour, word got out, and waiting lists began to form for training programs. Individual stories of lives being turned around through environmental job training emerged. Employers formed



Core Curriculum for a Brownfields Job Training Grantee

relationships with the job training organizations and came to depend on graduates to fill positions. After the success of the initial pilots, 25 additional Job Training grants were awarded in 2000, with EPA incorporating lessons learned into this most recent round of awards. While the initial Job Training Pilots could use their first year to develop an environmental job training curriculum, these latest and future pilots were required to have training curricula already developed. Individual training programs were also required to track graduates for at least a year, to ensure that trainees not only found jobs, but retained them. Furthermore, training organizations needed to demonstrate already-established partnerships and leveraged funding sources. Later rounds of Brownfields Job Training grant awards gave preference to established job training organizations with proven placement programs.

On January 11, 2002, the Small Business Liability Relief and Brownfields Revitalization Act was signed into law. Known as the “Brownfields Law,” this legislation amended CERCLA to specifically authorize federal financial assistance for brownfields revitalization, including grants for assessment, cleanup, and job training. Federal funding for Brownfields Job Training grants were authorized under section 104(k)(6) of CERCLA, which authorized EPA to provide grants for training to facilitate site assessment, remediation of brownfields sites, or site preparation. For the first time, CERCLA had included language specifically authorizing Job Training Grants under EPA’s Brownfields Program.

Training Residents Affected by Hurricanes Katrina and Rita through the Brownfields Minority Worker Training Program

In 2006, NIEHS received \$800,000 from EPA for minority worker training in communities affected by hurricanes Katrina and Rita. From February 2006 through July 2007, approximately 591 students were trained through this funding. Training occurred in New Orleans, LA and surrounding parishes; in Port Arthur, TX; and in Houston, TX. Of those trained, approximately 272 were small business employees and community residents that used their newfound knowledge to assist in the cleanup of their communities. Graduates of this supplemental program had an overall job placement rate of nearly 70 percent.

- Occupational Safety And Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (HAZWOPER)
- Asbestos and Lead Paint Abatement
- Environmental Site Technician
- Soil And Groundwater Sampling
- Confined Space Entry
- Demolition/Debris Removal
- Environmental Health and Safety

Other Specialized Training

- Mold Remediation
- Phytoremediation
- Hazardous Substance Transportation
- Disaster Site Worker
- Vapor Intrusion
- Construction
- Alternative Technologies

Benefits of the Brownfields Job Training Program

1. Helps residents take advantage of jobs created by the assessment and cleanup of brownfields
2. Provides training that leads to sustainable employment in the environmental field
3. Improves community involvement and stimulates the development of constructive partnerships
4. Fosters self sufficiency and enhances the skills and availability of labor for environmental remediation in communities impacted by brownfields, which facilitates the assessment and remediation of these sites
5. Enables residents to participate in the promotion of environmental health and occupational safety, both on the job and in their communities

Brooklyn, New York Job Training Program

As described by a graduate of the Brownfields Job Training program, “I now have a respect for myself, and my family sees it when I get up and go to work every day.”

Components of a Job Training Program

There are many critical components of a job training program, some of which are listed below. These core components need to be in place before implementing an environmental job training curriculum.

Marketing the Program

Marketing the Brownfields Job Training Program to the community such that the community understands the benefits and develops a desire to participate.

Link to Existing Workforce Development Programs

Ideally, grantees should have existing workforce development training programs established so that life-skills training, instructors, facilities, and equipment are already in place.

Partnerships With Private Industry

Leveraging partnerships with environmental remediation industry representatives to create curricula that meet the industry's market needs in a particular geographic region.

Rigorous Application and Admission Process

Scrutinizing and interviewing applicants so that participant expectations are communicated and the nature of the environmental job industry is clearly understood.

Placement

An essential component of any job training program is ensuring graduate placement. Many Brownfields Job Training grantees form advisory boards that consist of private industry representatives and conduct market analyses to make graduates more attractive to employers.

Concurrent Technologies Corporation, North Carolina Job Training Program

A graduate of this program obtained employment as a project manager earning a salary of \$42,000 a year. One of the main goals of the Brownfields Job Training Program is to provide graduates with the opportunity to earn a "living wage."

Job Training Program Profiles

The following pages include case studies that offer details on EPA-funded Job Training programs and demonstrate the five critical components of such programs. These case studies also illustrate the inherent differences of job training programs based on the types of entities establishing them.



Students from the Shreveport, Louisiana Brownfields Job Training Program participate in hands-on training.

St. Louis Community College - St. Louis, Missouri

Targeted Recruitment Area and Background

The cities of St. Louis, Missouri and East St. Louis, Illinois—separated by the Mississippi River—encompass a federally designated Empowerment Zone covering the area's most economically challenged communities. Of the approximately 50,000 Empowerment Zone residents, nine out of ten are minority, nearly one-fourth are unemployed, and almost half live in poverty.

In 1999, having already provided multiple Brownfields Assessment and Cleanup grants to St. Louis, East St. Louis, and St. Louis County, EPA partnered with St. Louis Community College (SLCC) to conduct a listening tour of neighborhoods affected by brownfields. The listening tour revealed a link to environmental justice issues and a need for environmental training. SLCC recognized the opportunity to enhance its existing job training curricula with environmental courses, while at the same time addressing the community's unemployment and environmental justice issues through an EPA Brownfields Job Training grant. After applying in 1999, SLCC was awarded its first \$200,000 Brownfields Job Training grant in 2000.

Challenges Faced by the SLCC Brownfields Job Training Program

According to Project Manager Jim Monahan, "This training program was similar to other job training programs. However, there was a learning curve regarding proper screening techniques for participants in this type of employment training." Monahan did say that tracking graduates turned out to be tougher than expected. "Reasons for [graduates being hard to track] include their having moved on to new jobs and homes, and their phone numbers changing," explains Monahan. "But those things essentially speak to the success of the training program."

The Community College Approach

SLCC's goal was to recruit unemployed and underemployed residents of the area's Empowerment Zone as candidates for training. The community college formed a partnership with St. Louis University and together, they created a six week, full-

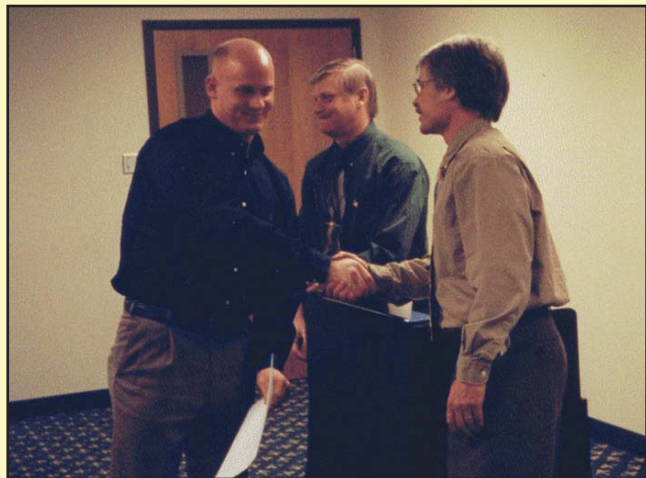
time training schedule that included lead and asbestos abatement, Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) certification, OSHA Safety Training, and life skills/job preparedness courses. "The approach was, and continues to be, to give trainees as many certifications as possible so that they have a variety of opportunities for employment," explains Monahan. "We're giving people opportunities that otherwise wouldn't be there."

What makes the SLCC Brownfields Job Training Program unique is its use of partnerships to recruit trainees. Along with St. Louis University, the SLCC collaborates with groups including the city's Father Support Center, Youth Build St. Louis, Employment Connections, local veterans' associations, and other local community advocate organizations. These groups refer potential trainees to the SLCC program and offer continued, specialized assistance once training is underway. "We have an advantage, because the

Job Training Program Component Example:

☑ Marketing the Program

As with all of the case studies included in this report, the St. Louis Community College Brownfields Job Training Program incorporates all of the components required for success. However, what separates this program from others is the innovative way it recruits trainees—through collaboration and communication with local, community advocate organizations. These organizations help to spread the word about the program and ensure that those who apply for training are stellar candidates.



St. Louis Community College Job Training graduation.

Job Training Program Profile



SLCC's Job Training Curriculum: Unique Aspects

• Supervisor-Level Certifications

By providing supervisory level certifications, graduates can apply for supervisor licenses after one year of field experience.

college has a very visible presence in the community,” says Monahan. “People feel they can approach us, and community groups are always willing to partner with us. The key to the program’s success has been our partnerships in the community.”

Once referred by a partner organization, potential trainees are screened before being called in for initial interviews. Those selected beyond that stage must attend an orientation session. “We clearly outline expectations, so that they know what they are getting into,” explains Monahan. “We make them understand the responsibility involved, that they have to show up every single day.”

Given the city’s industrial history, the demand for skilled asbestos workers influences both the curriculum and the graduation schedule. Asbestos abatement is emphasized more than any other part of the program, and training is structured so that students graduate in the spring, when most of the city’s asbestos abatement jobs become available.

Workforce Development Progress

The SLCC Job Training Program’s screening process ensures a high rate

of retention among students—of the 119 students selected for training, 105 graduated—a rate of more than 88 percent. A second Brownfields Job Training grant awarded to SLCC in 2004 funded two years of additional environmental training. The program no longer utilizes Brownfields Job Training funding, and is currently funded through NIEHS grants. In response to Hurricane Katrina, a mold remediation course and disaster site worker training were added to the curriculum, and some graduates were deployed to the storm-damaged area.

The wealth of new opportunities available to graduates has been dramatic. “You can see a physical difference in the community,” says Monahan. “For our first round of graduates, the demand was huge, and people got jobs very quickly.”

A Graduate's Experience

When St. Louis resident Everett Jenkins first heard about the SLCC Brownfields Job Training Program, he was driving a forklift. But with a daughter entering college, he was on the lookout for better opportunities. He was accepted to the SLCC program after spending time on the waiting list. “I was looking to get into something I could make a career out of,” Jenkins explains. “But since you don’t get paid [for the training], I spent six weeks working at night and going to the training classes during the day. But I wasn’t in it for the fun of it... I knew that the training would give me licenses and certifications that would always be good, wherever I lived.”

By the time Jenkins graduated from the program, there were already jobs lined

up. “They have a list of employers you can contact,” he explains, “and when my [State of Missouri asbestos abatement] license went through, I had a job waiting.”

Jenkins credits the program with providing him with new opportunities. “I can’t say enough about it,” he elaborates. “They give you everything you need to get a job, but you have to apply and sell yourself... you have to go get it. I was making decent money before, getting by, but nothing like now that I’m in the union. With my daughter going to college, it allowed me to get the things that she needed and take some of the pressure off. The training was a sacrifice... taking it while working full-time for six weeks. But sometimes you have to make a sacrifice to better yourself.”

A student thanks his teacher at the St. Louis Community College Job Training graduation.

Isles, Inc. ~ Trenton, New Jersey

Targeted Recruitment Area and Background

Trenton, New Jersey is one of the poorest cities in the nation, with more than 20 percent of its 85,000 residents living in poverty. The city was awarded one of EPA's earliest Brownfields Assessment Pilot grants in 1997, and has since received additional EPA funding for brownfields assessment and cleanup. With more than a hundred brownfields identified in the city, there is a demand from local environmental employers for trained environmental technicians to help prepare these sites for reuse.

Isles, Inc. is a non-profit community development and environmental organization that was founded in 1981 with a mission that promotes self-reliance and healthy, sustainable communities. For years, Isles had been involved in "Youth Build" training, preparing disadvantaged area youth for work; the Brownfields Job Training Program was a natural fit for the organization. Isles applied for and received a \$200,000 grant from EPA in 2005.

Challenges Faced by the Isles Brownfields Job Training Program

Though the program's first training went exceptionally well, Elyse Pivnick, Vice President for Environmental and Community Health Programs at Isles, explains that there were some unexpected bumps along the path. "Due to budget constraints, we were only able to budget for one staff person, and that proved unrealistic," she explains. "We also ended up having to pay for our life-skills training, which we anticipated would be provided pro-bono by another local program. The situation required us to seek additional funds from other sources, and we were fortunate to be able to do so."

Student transportation turned out to be another substantial challenge. "Initially, we thought we would be able to use our existing transportation to take students to the University of Medicine and Dentistry School of New Jersey (UMDNJ) facility and back," says Pivnick. "As it turned out the intended transportation was not

available, so we had to rent a bus instead. Job placement can be very difficult when graduates lack flexible transportation; we have identified many job opportunities that unfortunately turned out to be too far away or inaccessible by public transportation."

"Checking-In" to Evaluate and Ensure Progress

To develop its curriculum, Isles collaborated with the University of Medicine and Dentistry School of New Jersey (UMDNJ), which already had an environmental training program. "It helped that we had their tried-and-true training structure," says Pivnick. "With UMDNJ already certified to teach HAZWOPER and hazardous materials/asbestos abatement, we wouldn't have to reinvent the wheel."

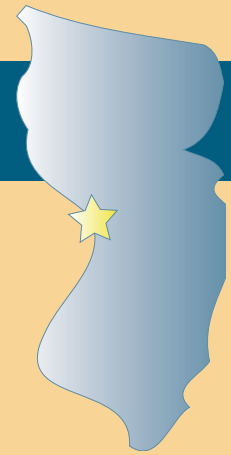
Job Training Program Component Example:

☒ Link To Existing Workforce Development Programs

As a community development organization that had been in operation for more than a quarter of a century at the time of its Brownfields Job Training grant, Isles, Inc. already had well-established, enduring partnerships with the City of Trenton, local colleges and universities, and a number of other community assistance organizations. Isles made the most of those connections, giving its students access to established, certified HAZMAT, asbestos, and other environmental remediation courses, as well as life-skills training.



Students from the Isles, Inc. Brownfields Job Training Program, suited up for training.



Isles, Inc.'s Job Training Curriculum: Unique Aspects

• History of Brownfields Presentation

"This component helps students understand that they are part of something important."

– **Elyse Pivnick**

Isles' Vice President for Environmental and Community Health Programs

Isles also partnered with Mercer County Community College to provide life-skills training in basic finances, budgeting, cover letter/resume writing, interview and workplace conduct, and driver's license preparation. "For a lot of employers, a driver's license can be an essential part of their [hiring] decision," explains Megan Ruf, former Manager of Isles' job training program. "We developed a 'Clean Slate' program to help pay outstanding fines so that background checks wouldn't be a problem."

To recruit potential trainees, Isles conducted a broad outreach effort by posting flyers in unemployment offices, laundromats and community centers. It developed a program brochure and held information sessions on Saturdays and in the evenings, when interested candidates could have their questions answered before applying to the program.

Once candidates made it through an approval process that included a five-page application and a panel interview, they entered the ten-week training program—which included a 40-hour HAZWOPER course; courses in lead and asbestos abatement; Occupational Safety and Health Administration

(OSHA) construction awareness; confined space entry certification; and courses in math, computer skills, English, writing and life skills. Environmental Justice and OSHA rights training were provided by the New Jersey Work Environmental Council, and representatives from local environmental companies provided day trips where students received hands-on experience at actual job sites.

One additional, innovative aspect of the training was a course on the history and significance of brownfields, provided by the City of Trenton. "It helped bring the concept of brownfields to the students," explains Pivnick. "If we had just given them asbestos and other training without any sort of context, it wouldn't have worked as well. This helped students understand that they were part of something important."

In another of Isles' unique approaches, staff met regularly with trainees to evaluate progress and offer advice. "This was really effective," says Ruf. "It gave students positive feedback and let them know what they needed to do to improve. Since this was a long, unpaid training course, that kind of motivation was essential."

Isles' first Brownfields Job Training class of 25 produced 23 graduates, at least half of whom are now employed. The organization plans to continue with another year of training, and produce at least one more graduating class of the same size.

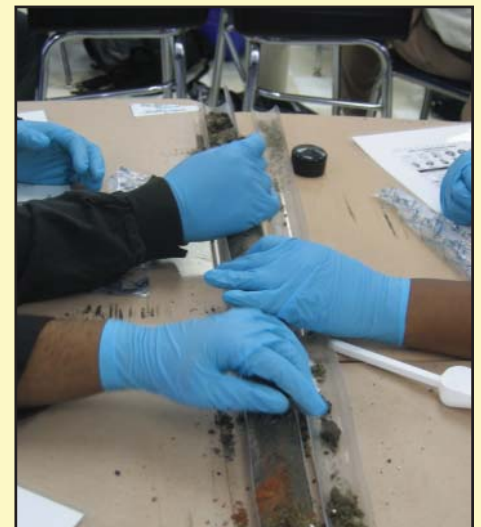
A Graduate's Experience

At the time he first heard about the Isles, Inc. Brownfields Job Training

Program, Greg Perry had limited options.

"I was in-between transitional housing facilities," he explains, "So I was pretty much homeless at the time." Also unemployed, Perry was told about Isles' training through the Mayor's Office of Employment. "I was looking to better myself and the situation I was in. And once I found out about the credentials that I could acquire through the program, I really grabbed onto it."

"For me, the most valuable part of the training was the hands-on experience. We went out and had actual training, being lowered into manholes, confined spaces, and such. I'm now working in lead abatement for an environmental service company, and [at Isles] we had training in exactly that. We were also prepared for confined space training, and I'm now waiting to hear back on a job where I'd get to use that certification. The training has really paid off for me."



Soil analysis taking place at the Isles, Inc. Brownfields Job Training Program.

City of Tucson, Arizona

Targeted Recruitment Area and Background

Tucson, Arizona, has its share of brownfields, and the city has received multiple EPA Brownfields grants to assess and clean up industrial sites that include former landfills, rail yards, and milling operations. Most of these sites are located within a federally designated Empowerment Zone containing nearly 50,000 residents, of whom 60 percent are minority and 70 percent qualify as low-income. As part of restoring the area's brownfields, local companies expressed a need for entry-level environmental technicians. To help meet this demand while also serving the community, the city applied for and received an EPA Brownfields Job Training grant in 2005.

Challenges Faced by the Tucson Brownfields Job Training Program

One of the challenges encountered by the program was that it was not affiliated with an educational institution. "Gathering and retaining instructors and then juggling schedules to fit the program was challenging," remarks Lisa Cuestas, Program Manager with the City of Tucson. In addition, recruitment has proved to be difficult. There was a lot of initial interest in the program, but after interested recruits found out how intense the training was, interest levels fell off.

Environmental Professionals as Mentors

The primary focus of Tucson's Brownfields Job Training Program is to develop entry-level environmental technicians to serve as resources to local companies while

creating opportunities for residents of the economically-disadvantaged area. Collaborating with the Pima County Community College and the Southern Arizona Environmental Management Society (a non-profit organization that promotes education and understanding of environmental issues), the city developed a five month, 208-hour training program. The program includes a 40-hour HAZWOPER certification course, 10 hours of general industry OSHA training, and courses in media sampling, environmental site assessment, environmental compliance, lead and asbestos abatement, and remediation technology. Program trainees are recruited from the Empowerment Zone.

The first class was comprised of nearly an equal amount of men and women, something that was somewhat unexpected, says Cuestas. She attributes that equal ratio to one of the program's more unique characteristics—that classes are held only nights and weekends. "It allows more women to attend," she elaborates. "One graduate had two kids and she would wait for her husband to come home, then she'd go to class... women love this program."

Another of the program's unique aspects is that each student is assigned an environmental professional from local, private industry who acts as a mentor throughout the training. Students "shadow" their mentors on environmental jobs to get real-world exposure in the work community. These mentors also serve as references for students after graduation.

Job Training Program Component Example:

☒ Partnerships with Private Industry

With a primary goal of creating entry-level environmental technicians to meet the growing demand of local firms, it seems only logical that Tucson's Brownfields Job Training Program would emphasize partnerships with local industry. A special advisory board made up of representatives from private industry and the public sector helps mold the program's curriculum. Some representatives also act as mentors to students throughout their training, offering real-world experience and career connections once training is complete.

Students in Tucson, Arizona, gaining field experience.



Tucson's Job Training Curriculum: Unique Aspects

• "Hands-On" Training

By providing participants with a "hands-on" approach to training, it gives them real-life and practiced skills. This makes graduates more attractive to potential employers.

The program also uses an advisory board made up of representatives from local environmental firms and the community college. The board provides feedback on the program and helps mold the curriculum, which reflects the local environmental companies' steady demand for entry-level technicians. Once training is complete, the City of Tucson organizes a job fair where graduates can interview with representatives from environmental firms.

Workforce Development Progress

At the end of the first training period, 16 of the 17 enrolled students graduated. Nearly 90 percent of those graduates are now employed. There has since been another graduating class of 10 and at the last post-graduation job fair, three former graduates were recruiting for their companies.

One of those graduates had been assembling bicycles prior to joining the training program. After the program, he found a position with an environmental company. He has since been promoted, and the company is looking to hire another of the program's graduates to fill his former position.

A Graduate's Experience

In 2003, Celia Martinez was a single mother who had just been laid off from her job in an industrial wire bonding facility in Tucson. "I had been there for 23 years," Martinez explains, "I thought I had some job security, but I was wrong... I knew I wanted something for a career, but I didn't know what it was."

Martinez learned of the Brownfields Job Training Program only a few days before the application process ended. She took to the training from the beginning. "It was the most exciting and valuable training I've ever taken," she says. "Every teacher you had was involved in the field, and you learned things that you would actually be able to use, unlike a lot of other classes. And when it was time to get a job, I could tell them about soil extraction, and monitoring wells, and I was ready."

Shortly after graduation, Martinez attended the job fair, where she had four immediate offers. "I was picky and went with the one I wanted," she explains. "I ended up overseeing construction of a PCB [polychlorinated biphenyls] treatment plant, and now they've made me the plant operator."

At the job fair for the latest round of graduates, Martinez was chosen to attend as her company's representative. She has advice for those interested in the city's environmental job training program. "If you want something different and exciting, and something that is actually helping our community and the world, this is the job to have."

L.A. Conservation Corps, Los Angeles, California

Targeted Recruitment Area and Background

The Alameda Corridor in Los Angeles, California, is a former industrial area that lies within a densely populated, federally designated Empowerment Zone of approximately 19 square miles. Poverty rates in this zone are as high as 40 percent, and unemployment rates are close to 20 percent. Since 1986, the non-profit L.A. Conservation Corps (LACC) has provided at-risk young adults and school-aged youth with job training, education, and work skills training with an emphasis on environmental and service projects that benefit the community.

The LACC has worked closely with the City of Los Angeles since 2001 on developing job training programs. Los Angeles had already been the recipient of a number of Brownfields Assessment and Cleanup grants from EPA, to address former industrial sites within the Alameda Corridor and beyond. As a result of these and other site restoration efforts, environmental employers on the city's Brownfields Advisory Board indicated a growing need for certified environmental technicians and the city suggested to LACC that it apply for an EPA Brownfields Job Training grant. The LACC subsequently applied for and was selected as a Brownfields Job Training grantee by EPA in October 2005.

Challenges Faced by the LACC Brownfields Job Training Program

Even with the high level of dedication of the vast majority of the LACC's Brownfields Job trainees, old habits proved difficult for a few students to break—resulting in some unexpected challenges for program managers. Though all students accepted in the program were initially tested for illegal drugs, no additional tests were performed throughout the training. In a few, rare instances, placed graduates were shown to have illegal drugs in their systems when first tested by their new employers. “It burns bridges with local employers,” explains Alex Lopez, Senior Manager with LACC, “and we have to put out the resulting fires.”

Job Training Program Component Example:

☑ Rigorous Application and Admissions Process

The LACC Brownfields Job Training Program offers an excellent example of the value of a rigorous application and admissions process. With a recruiting area comprised mostly of at-risk youth, it was essential that the program impress upon its applicants the need for professionalism and dedication—while weeding out those who did not appear ready. With established job training practices already in place, the program also used highly effective job placement strategies and partnerships with local organizations to ensure its success, as well as the placement of its graduates.



Students in Los Angeles, California in classroom training.

Another unforeseen challenge to the LACC Brownfields Job Training Program is the difficulty of tracking students after graduation. “Once they graduate, we track them for a year,” says Lopez. “But once they’re placed on jobs they tend to stop following up with us. Sometimes we have to keep track of our graduates by calling local employers, and listening to word-of-mouth.”

Discipline as a Prerequisite

The LACC teamed with the North Orange County Community College District to develop a 240-hour, environmental curriculum with instruction in HAZWOPER, lead and asbestos abatement, forklift certification, and other environmental cleanup technologies.



LACC's Job Training Curriculum: Unique Aspects

• Refinery Safety Overview (RSO) Training

An important component of the program, as many graduates are able to quickly find jobs at local refineries.

• Forklift Operators Course

The course plan included additional job and life-skills training, funded through the LACC and local work source centers.

To recruit students into their new training program, the LACC held orientation sessions. Explains Lopez, "Most [applicants] have been under- or unemployed their whole lives, so they're enthusiastic at the idea of getting a well-paid job." A unique feature of the training program is that those who applied for the training are given a quiz on their earlier orientation to see who was paying attention. Lopez explains, "We can assess who is really enthusiastic about this type of career, and who just wants 'a job.'"

The strict Brownfields Job Training class ensures graduating trainees are prepared. On average, one-fourth of a typical Brownfields Job Training class will not graduate. "They can get dismissed for being a minute late," explains Lopez. "We try to make the environment even stricter than what they'll find in the workforce. We want to make sure that we are well represented with the employers that we depend on to hire our graduates."

The LACC works with local partners to enhance its training program. The Brownfields Advisory Board places

graduates and obtains employer input to improve the curriculum. Local workforce centers help students get to and from training. The city's Department of Rehabilitation helps students buy clothing and uniforms.

The LACC also works with local labor unions that hire up to 60 percent of the program's graduates. "Now, close to half of our trainees get placed before they even graduate," says Lopez.

Workforce Development Progress

The LACC Brownfields Job Training Program has conducted three trainings, graduating a total of 61 students—59 of whom have found environmental jobs. According to Lopez, community interest in the training has exploded. "Unfortunately, we have to turn a lot of people away... but when you get all this positive feedback and people are trying so hard to get in, you know that the program is working."

The LACC has applied for and received an additional grant from EPA that will extend the program for another two years, to 2009. "The future holds nothing but great things," says Lopez. "When people are on parole or have a criminal background, they don't have a lot of opportunities... it's nice to see how happy the community is [with the program]. And when you see that people are succeeding, it gives you motivation to continue."

A Graduate's Experience

When Stanley Randall applied for LACC's Brownfields Job Training Program in 2006, he was approaching 40 and had recently been released from prison. As a parolee, Randall was looking to turn his life around,

and heard about the LACC program through friends.

"There were people I knew in the [Brownfields Job Training] program, once they graduated they were making as much as \$1,300 a week," he explains. "One guy was making \$75 an hour. I thought it couldn't be true, but other guys from the program were making the same amounts. So I applied, I got lucky, and got in."

"I liked the training, dressing up in the HAZMAT suits, just doing the work, period. The learning was interesting—about abatement, about EPA and the history, it was all fascinating to me. There was a lot you have to learn, you're constantly learning every day... if you're not serious about the training, it's not going to happen for you. People want things handed to them. They want it for nothing, or feel society owes them. But society doesn't owe them. You owe it to yourself to do this."

"The first company they had me interview with—I had that interview before I even graduated—I'm still with them... the longer you stay in this field, the more people you meet, the more resources you have, the more opportunities you have. And another door opens and you can take it to another level. Right now I'm a supervisor, and after two more certifications I could be a consultant. There are so many opportunities it's almost overwhelming. It's just wide open."

Absentee Shawnee Tribe, Oklahoma

Tribal Background

Located 40 miles east of Oklahoma City and approximately 102 miles southwest of Tulsa, the Absentee Shawnee Tribe is one of 39 tribes within the State of Oklahoma. Brownfields have long been a problem on Absentee Shawnee land, particularly as the result of illegal dumping. The Tribe has identified more than 30 illegal dump sites, some of which are slated to be cleaned up with EPA assistance. In 2004, the Tribe received a Brownfields Assessment grant from EPA to address a 21-acre, former industrial site, the eventual redevelopment of which should alleviate the community's high poverty and unemployment rates.

When the Brownfields Assessment grant was awarded, the Tribe already had a Job Force Investment Program in place, providing job placement assistance and educational courses for students looking to go to college. Using the Investment Program as a foundation, the Tribe applied for an EPA Brownfields Job Training grant, which was awarded in January 2006. The award represented the first such grant to a tribe within EPA Region 6.

Challenges Faced by the Absentee Shawnee Brownfields Job Training Program

One of the challenges encountered by the program was the lack of accreditation to certify trainees in asbestos abatement—an ability typically granted through state government. As a sovereign nation, the Tribe is exempt from most state laws and consequently the state's asbestos accreditation program. However, federal accreditation was not available, so the Tribe was forced to work within the state's program. After an impasse, the Tribe worked closely with staff from EPA Region 6, who acted as mediators in the process, and the Tribe's asbestos accreditation was eventually awarded. The Tribe is one of only three entities and the only tribe accredited with the state's asbestos program.

Another challenge that the Tribe faced was that there was no financial assistance for participants during the eight week

Job Training Program Component Example:

☑ Placement

The first tribal Brownfields Job Training grantee within the region, the Absentee Shawnee Tribe already had a Job Force Investment Program that had long been helping tribal residents find work. Using that program as a foundation, the Tribe's Brownfields Job Training Program developed an innovative, unique arrangement to ensure job placement for trainees: the program allows employees from local environmental companies to participate in training, with the understanding that the employer will hire program graduates. Through this agreement, local employees expand their qualifications while ensuring trainees' future employment.

program. The Tribe's response to this challenge was to allow participants to participate in components of the program without enrolling for the entire eight weeks, enabling trainees to keep their existing jobs. To receive the Remediation Worker certificate, participants need to complete all components of the eight week program but do not need to take them in the same training period.

Training Tribal Members

The Tribe's Office of Environmental Protection developed the Brownfields Job Training curriculum in-house, based on the demand for environmental professionals created by the area's contaminated sites and the needs of

Students in the Absentee Shawnee Tribe Brownfields Job Training Program learn decontamination techniques.



Absentee's Job Training Curriculum: Unique Aspects

- **Methamphetamine Lab Awareness**

Participants are taught to recognize the combination of materials used to produce methamphetamine, so that they have the knowledge of the unique hazards associated with clandestine drug labs.

- **Incident Command**

Since many employers are emergency responders, this component gives graduates a good sense of the management structure of the field.

in training, with an agreement that the employer will hire program graduates. This allows existing employees to gain new skills while ensuring future placement of program trainees.

As part of the curriculum, students train on active cleanup sites. Because the Tribe is a sovereign entity and owns these sites, the students learn on and operate equipment that is being used in various cleanup efforts. Another of the program's unique features is training on methamphetamine lab awareness. This training session was developed at the University of Alabama at Birmingham, to prepare students for work in cleaning up abandoned, makeshift labs.

Job Training Program Progress

The Tribe's Brownfields Job Training Program, now planning for its fourth training cycle, produces skilled graduates who are highly sought after by local employers. With more than 30 graduates, the program has a near 76 percent placement rate—with companies waiting for students to complete training. One of the graduates of the first round of training is now an asbestos abatement instructor with the program. Additionally, the Tribe itself has hired program graduates to work in the Tribal Office of Environmental Protection. Some graduates are collaborating to start their own company—a Native American, environmental contracting firm.

"Tribal members like doing environmental work because they feel they are giving back something," explains Renee Hood. "We had students who were doing whatever it

took to make ends meet prior to the training, working multiple jobs; but now they are making \$850 a week after taxes. Through this program, we want to do whatever we can to make people's lives better and give them an advantage."

A Graduate's Experience

Prior to the Brownfields Job Training Program, Absentee Shawnee Tribal member Roddy Camp already had experience as an Asbestos Abatement Technician and heavy equipment operator. However, the availability of work had been sporadic, and he hoped that the Tribe's new training program would help him get a Contractor/Supervisor's license. Roddy found the training both valuable and enjoyable. "I really liked the Confined Space and HAZWOPER training components," he explains. "They were fun, and both had a good, hands-on approach."

After graduation, Roddy planned to return to the company where he had worked before—but the Absentee Shawnee Tribe had other ideas, offering Roddy the position of Asbestos Trainer for the Brownfields Job Training Program. Roddy is now the remediation technician for the Asbestos division for the Absentee Office of Environmental Protection, and coordinates all asbestos abatement projects on tribal lands. "The program helped me out a lot," he elaborates. "I have three children, and the program allowed me to purchase a home and become more financially stable."

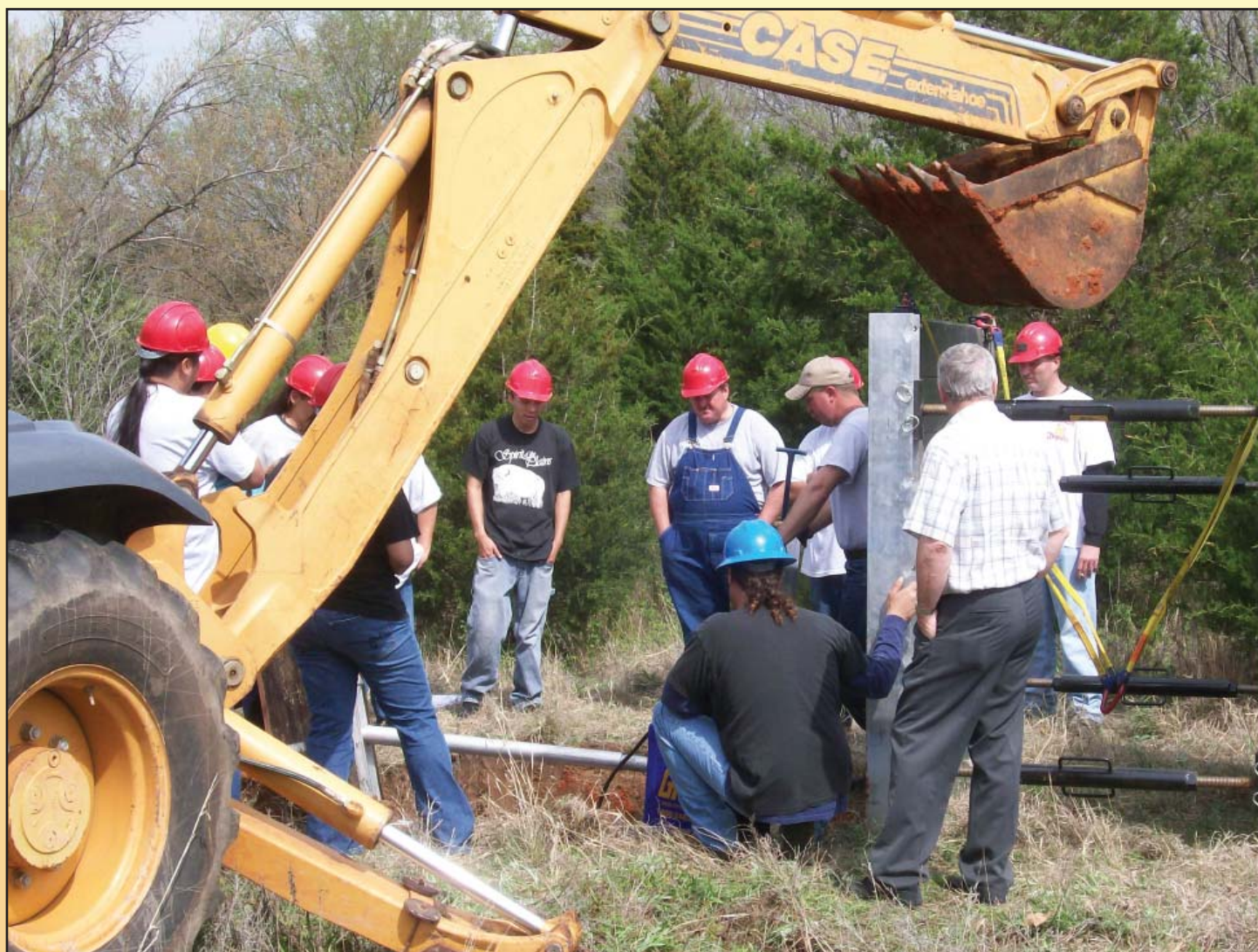
local environmental companies. The Investment Program formed a partnership with East Central University in the nearby City of Ada, to allow trainees access to the University's nationally accredited Environmental Science Program. They also partnered with the Gordon Cooper Technical Center in the City of Shawnee, for the Center's Industrial Safety Program. "These partners are fully involved and an essential part of the project," explains Renee Hood, Environmental Director of the Absentee Shawnee Tribe.

The Tribe's job training program involves eight weeks of classes, from 9:00 AM – 4:00 PM every day. Students get hands-on experience in the field, conducting sampling and other training at the 21-acre brownfield targeted by the EPA Assessment grant. In an innovative arrangement, local environmental companies can send employees to the program to participate

Building for the Future

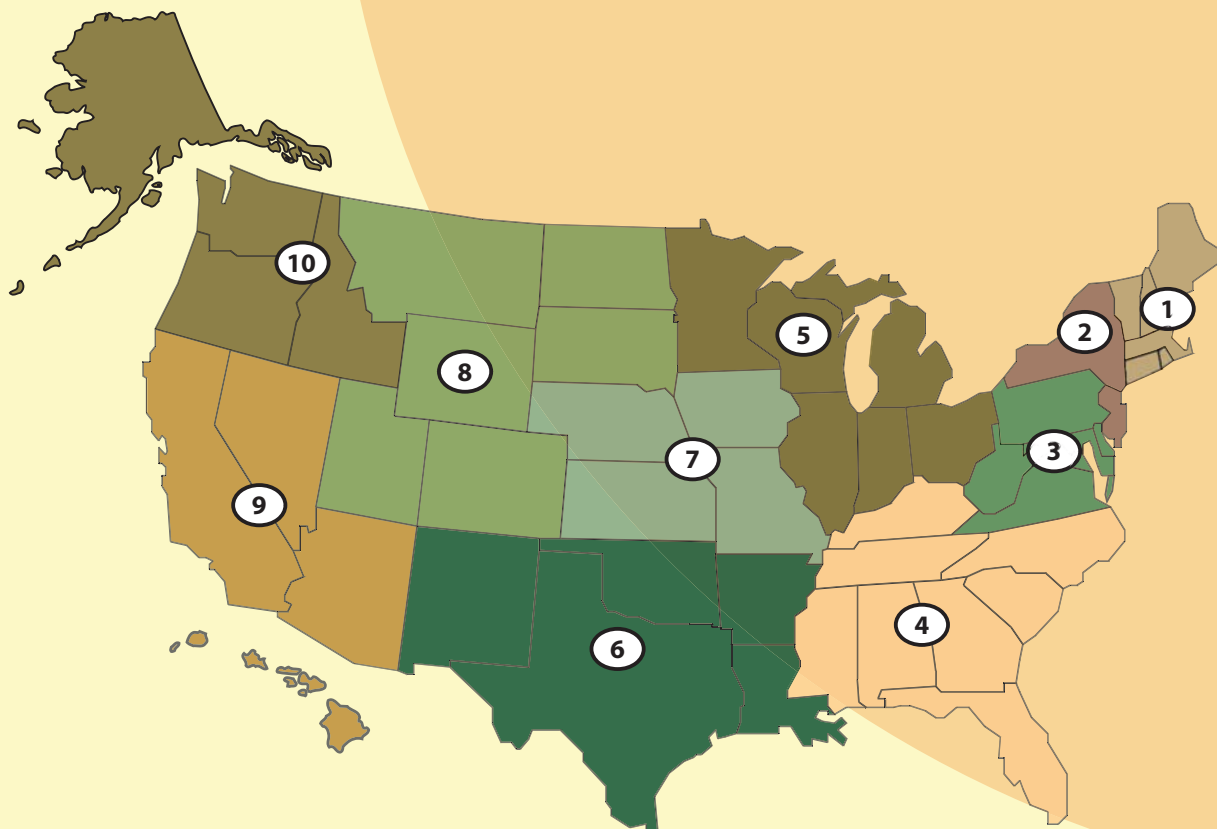
As the Brownfields Program moves into the future, the demand for qualified environmental technicians continues to grow across the country. Through its invaluable partnerships, graduate placement efforts, and fluid curricula that evolve to fit job market demands, the Brownfields Job Training Program will continue to change lives and meet critical community needs. Residents of brownfields-affected communities now have opportunities that, prior to the program, weren't available. Local environmental firms can select from graduates with first-rate training in asbestos and other hazardous materials abatement. And communities are building a workforce of environmental technicians that will help transform the brownfields that have negatively affected them for so long.

If you are interested in developing a job training program in your community, contact the appropriate regional coordinator listed on the following page.



Students in the Absentee Shawnee Tribe Brownfields Job Training Program participating in on-site training.

EPA Regional Job Training Coordinators



EPA Brownfields Job Training National Program Lead:

Joseph Bruss
(202) 566-2772
bruss.joseph@epa.gov

Coordinators by Region:

EPA Region 1
Marcus Holmes
(617) 918-1630
holmes.marcus@epa.gov

EPA Region 2
Schenine Mitchell
(212) 637-3282
mitchell.schenine@epa.gov

EPA Region 3
Jeff Barnett
(215) 814-3246
barnett.jeff@epa.gov

EPA Region 4
Kathleen Curry
(404) 562-8660
curry.kathleen@epa.gov

EPA Region 5
Linda Morgan
(312) 886-4747
morgan.linda@epa.gov

EPA Region 6
Amber Perry
(214) 665-3172
perry.amber@epa.gov

EPA Region 7
Ina Square
(913) 551-7357
square.ina@epa.gov

EPA Region 8
Bernadette Gonzalez
(303) 312-6072
gonzalez.bernadette@epa.gov

EPA Region 9
Noemi Emeric
(213) 244-1821
emeric.noemi@epa.gov

Wallace Woo
(415) 972-3270
woo.wallace@epa.gov

EPA Region 10
Deborah Burgess
(360) 753-9079
burgess.deborah@epa.gov

For more information on EPA's
Brownfields Job Training Program, please visit:
<http://www.epa.gov/swerosps/bf/job.htm>

For additional knowledge and tools on job development
and training in brownfields communities,
please visit HMTRI's Brownfields Toolbox at:
<http://brownfields-toolbox.org>

For more information on NIEHS's Brownfields
Minority Worker Training Program, please visit:
<http://www.niehs.nih.gov>



*U.S. Environmental Protection Agency
Improving Land and Lives: 10 Years of Investment
in EPA's Brownfields Job Training Program*

*Solid Waste
and Emergency
Response (5105T)*

*EPA-560-R-08-001
March 2008
www.epa.gov/brownfields/*