

2001 Annual Report Executive Summary





A Message from the Governor

Our land is more than the ground we stand on. In its rich soil, we grow our food. Along its bands of green, we relax and play. It is literally the foundation of our economy — the ground floor of the workplaces where we earn a living.

How we use and reuse our land is an important concern. And, as you will see in the pages of this report, our attitudes toward land use can have a profound impact on our communities and our way of life.

Pennsylvania is working aggressively to address the issue of land use with a powerful package of tools. And the nation is taking notice.

Our Commonwealth's nationally recognized Land Recycling Program, now in its sixth year, has cleaned up more than 890 old industrial sites — sites where more than 25,000 Pennsylvanians now work.

Pennsylvania leads the nation in farmland preservation — keeping more than 200,000 acres from commercial development or other land encroachment.

And thanks to our historic, \$650 million Growing Greener program — the state's largest-ever environmental investment — and our Growing Smarter land-use reforms, Pennsylvania is reaching new milestones in protecting open space, improving watersheds and managing growth.

Attitudes have changed. Environmental protection and economic growth now go hand-in-hand. It's not jobs or trees — it's jobs and trees.

Thank you to the Pennsylvania communities, businesses and residents who are preserving our land while pursuing economic prosperity. I encourage you to continue your stewardship of our environment.





A Foundation for Our Future

Since taking office, the Ridge/Schweiker Administration has championed land use and environmental protection reforms for Pennsylvania through programs like Growing Greener and Growing Smarter.

As the Commonwealth grows, we also are building on our industrial past to help us prosper and to protect our environment. Pennsylvania's Land Recycling Program provides a foundation for our future.

One look at the Land Recycling Program showcase sites and you'll see we've had some great achievements.

The University of Pittsburgh Medical Center's Sports Medicine Complex, along the Monongahela River, sits on 14.5 acres of a former steel factory. Instead of an old industrial site, it's the home of a \$30 million, 460,000 square-foot medical clinic for orthopedic surgery, rehabilitation and a training center for the University of Pittsburgh Panthers and the Pittsburgh Steelers.

Consider Metroplex in Montgomery County — an \$85 million retail complex built on a former industrial site that went unused for 20 years. With 780,000 square feet of retail space, it provides jobs for 1,000 people.

On Presque Isle Bay, the Erie Maritime Museum was the first new museum to open in the area in 20 years on the site of GPU Energy's Front Street Station. The former power plant is being transformed into the Bayfront Centre, a \$117 million development that includes the museum, the Erie County Library and Civic Auditorium, a hotel, commercial space, a marina and residences.

These are just a few of the fine examples of abandoned industrial sites that are becoming the pride of their communities, thanks to public-private partnerships through the Land Recycling Program.

And we have some innovative new tools, like the award-winning PA SiteFinder website, to help our business partners seize opportunities to reuse old sites.

Turn these pages and learn more about how Pennsylvania is advancing the business of land recycling. Then, consider renewing a partnership or becoming a partner. This is a great time for businesses and communities to participate in brownfield redevelopment!



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Glossary of Chemical Terms

inside back cover



Pennsylvania Land Recycling Program

Overview

Six years ago, Pennsylvania passed three pieces of environmental legislation that are commonly referred to as Pennsylvania's Land Recycling Program. This legislation provided the foundation that established Pennsylvania as a national leader in voluntary cleanup programs. Today, Pennsylvania's program serves as a model approach for transforming abandoned, idle properties into locations for economically viable businesses.

Four cornerstones provide the building blocks for the Land Recycling Program. These cornerstones — uniform cleanup standards, liability relief, standardized reviews and time limits and financial assistance — pave the way for redevelopment projects. A commonsense approach, based on sound science, is key to the success of Pennsylvania's Land Recycling Program. Through the cooperative efforts of economic development agencies, lenders, attorneys, appraisers, brownfield advocates, developers and environmental consultants, we have overcome traditional concerns about investing in brownfield properties and created new economic and environmental opportunities for Pennsylvania communities.

This sixth annual report highlights the achievements of Pennsylvania's Land Recycling Program and the cooperation of countless stakeholders working toward brownfield redevelopment. In the following pages, we report on our new initiatives and financial opportunities, as well as efforts in education and outreach. The report illustrates the effectiveness of the Land Recycling Program — not only from an environmental standpoint, but also from a community economic development perspective.

Successful brownfield redevelopments come in all shapes and sizes, from "green" corporate offices and a shopping center to a medical rehabilitation center and recreational facilities; and they are emerging across the Commonwealth. With the enthusiasm and support of neighborhood interest groups, local economic development agencies, developers and others, we are working together to do right for Pennsylvania.

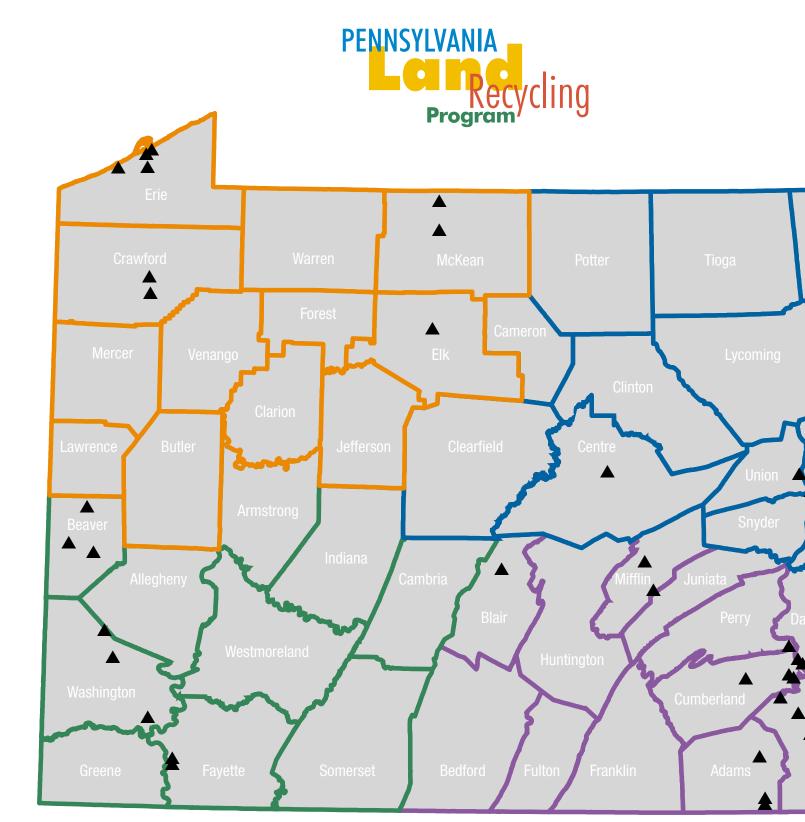
We invite you to read through the following pages and learn how Pennsylvania's Land Recycling Program has become **A Model of Success** for effective land use and economic growth.



The PNC Firstside Center, built on the site of an abandoned rail yard along the riverfront in downtown Pittsburgh, demonstrates the cost-effectiveness of sustainable development and green building techniques. The building's modern design complements the city's historical roots, as well as its 21st century progress.

Developers shouldn't see a brownfield as a hindrance, but rather as a chance to capitalize on the many amenities a brownfield offers, including prime location, urban context and opportunities for attractive views.

— **David Pecharka, AIA**Vice President of Sustainable Design
LDA — L.D. Astorino Companies



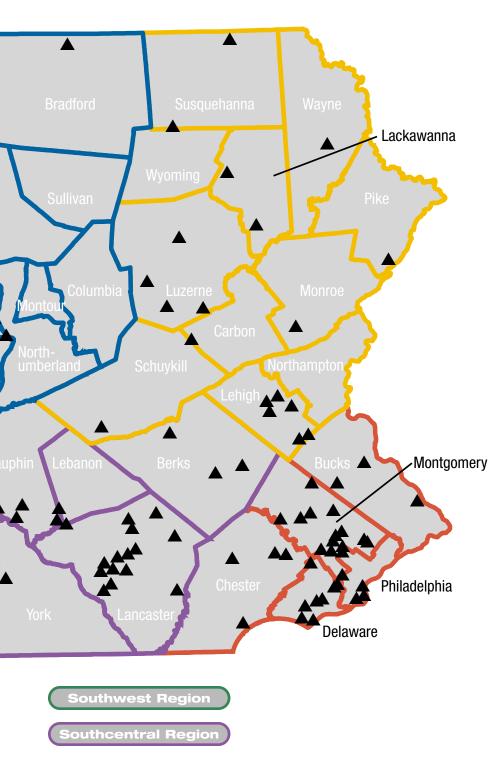
▲ Cleanups completed this year

Northwest Region

Northcentral Region

Northeast Region

CLEANUPS July 1995 - June 2001



Southeast Region

0	Cleanups completed	Cleanups in	Cleanups completed
County	this year	progress	previously
Adams	1 4	30	8
Allegheny Armstrong	0	4	1
Beaver	3	10	5
Bedford	0	0	1
Berks	6	31	29
Blair	0	9	6
Bradford	1	4	2
Bucks	16	31	50
Butler	1	3	4
Cambria	0	0	2
Cameron	0	0	1
Carbon	0	1	4
Centre	5	3	10
Chester	13 1	14 0	<u>53</u>
Clarion Clearfield	0	1	<u>'</u>
Clinton	1	1	6
Columbia	2	1	4
Crawford	2	3	9
Cumberland	4	5	25
Dauphin	4	6	42
Delaware	14	21	32
Elk	1	2	0
Erie	7	13	22
Fayette	1	1	3
Franklin	0	9	3
Fulton	0	0	1
Greene	0	0	1
Huntingdon	0	1	1
Indiana	0	1	2
Jefferson	0	1	2
Juniata	0	0	1 00
Lackawanna	4 14	6 18	32 55
Lancaster Lawrence	0	2	
Lebanon	0	5	13
Lehigh	6	13	42
Luzerne	2	12	20
Lycoming	2	8	10
McKean	1	1	0
Mercer	3	0	7
Mifflin	2	2	5
Monroe	3	1	3
Montgomery	23	26	63
Montour	0	2	1
Northampton	1	10	26
Northumberland	2	3	13
Perrry Philadalphia	12	0	3
Philadelphia Pike	13 1	46 0	45 4
Potter	1	5	3
Schuylkill	4	5	14
Snyder	1	2	0
Somerset	1	1	3
Sullivan	0	1	0
Susquehanna	1	0	0
Tioga	1	4	1
Union	0	0	3
Venango	0	1	1
Warren	0	0	2
Washington	3	7	8
Wayne	1	0	5
Westmoreland	0	12	5
Wyoming	1 2	0	2 28
York Total	3 181	23 423	7 90



Pennsylvania Land Recycling Program Year in Review

Introduction

Since the Land Recycling Program's inception in 1995, more than 1,000 cleanups have been approved at 892 properties in 66 counties, including 230 cleanups conducted during DEP's fiscal year 2000 – 2001.

This adds up to a proven track record of understanding the value of flexibility when redeveloping brownfield sites. That is why the Land Recycling Program allows an owner or purchaser of a brownfield site to choose any one or a combination of cleanup standards to guide the remediation. By meeting one or more of DEP's three cleanup standards, the remediator will receive enduring liability relief for the property. The three standards are the background standard, the statewide health standard, the site-specific standard, and there is also a special industrial area designation.

For a complete list of Land Recycling Program site descriptions for this fiscal year and cleanup listings over the history of the program see *Defining Results, 2001 Annual Report Appendices* (Appendix 1 and Appendix 2).

The popularity of the Land Recycling Program continues to grow. Since the program was launched, DEP has received nearly 1,500 notifications of intent to remediate (NIRs) — 342 in this past year alone. Astoundingly, the program's redevelopment efforts, including site assessments and cleanups, have been publicly supported through \$44.9 million in grants and loans by Land Recycling Program partners.

The three-piece legislative package established the program's sound science, commonsense standards and flexibility, liability relief that allows banks and economic development agencies the peace of mind to use brownfield sites for redevelopment projects, and funding sources that make assessment and cleanup dollars available to clients through grants and low-interest loans.

Pennsylvania Land Recycling ProgramStandards

Statewide Health Standard.

This standard is derived from medium-specific chemical concentrations taking into account use and non-use as well as residential and non-residential exposure factors at a site.

Site-Specific Standard.

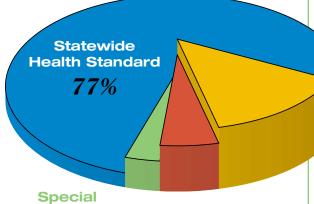
This standard allows the remediator to consider exposure and risk factors to establish cleanup levels appropriate for the intended use of the site.

Background Standard.

This standard requires cleanup to naturally occurring or historical concentrations. It often applies to a site where contamination moves onto or under the site from a nearby property.

Special Industrial Area Status.

This status applies to sites that have no responsible owner or are in an enterprise zone. The party conducting the cleanup must not have contributed to the site contamination and must develop a cleanup plan. Cleanup actions must address all immediate, direct or imminent threats based on the intended use of the site.



Special Industrial Area Status

3%

Site-Specific Standard

14%

Background Standard

6%

Increasing Opportunities

DEP continues to seek new participants to join the growing list of business and community entities that are taking advantage of the Land Recycling Program. DEP is actively contacting attorneys, appraisers, brownfield advocates, community planners, developers, economic development agencies, environmental

I've worked on brownfield redevelopment projects in several states, and DEP's Act 2 is by far the easiest to work with and the most predictable.

— **Joseph M. Manko**Founding Partner
Manko, Gold & Katcher, LLP

consultants, insurers, lenders, local government and realtors to identify and promote further success stories. As part of DEP's key alliance outreach campaign, the program strives for customer participation, education and satisfaction. By working closely with public and private remediators, DEP assures compliance with state standards while providing assistance and spreading awareness about Pennsylvania's innovative remediation approach.

Many of the initiatives currently under development could not have been accomplished without the many cooperative partnerships with visionary and entrepreneurial organizations and businesses. To foster new relationships and enhance existing ones, DEP is creating additional tools, such as a lender's guide and interactive web-based resources, to aid economic development agencies, consultants, attorneys, lenders and



For more information about the Land Recycling Program

or to share a **success story**, contact DEP at (717) 783-7816 or email landrecycling@state.pa.us. To stay abreast of program literature, upcoming workshops and program issues, visit the Land Recycling Program's website at www.dep.state.pa.us (directLINK "Land Recycling").

Pennsylvania Land Recycling Program\vec{Vew Initiatives} and Studies

PA SiteFinder — The Ultimate Guide to Brownfields

Financial Resources for the Environment (FRE)

Environmental Guardian Trust

others in understanding and getting the word out about Land Recycling Program opportunities.

The following pages provide an insightful glimpse of Pennsylvania Land Recycling Program activities during the past year.

Making Progress with New Initiatives and Informative Studies

The Land Recycling Program is committed to managing risk and protecting the environment, while providing opportunities for smart growth. Over the last six years, sound science and common sense have guided the development and refinement of the Land Recycling Program. DEP continues to capitalize on its track record of success by offering a variety of initiatives that provide brownfield stakeholders with the tools necessary to overcome the environmental and economic challenges of brownfield redevelopment.

The initiatives that you will find in the following pages are the result of visionary 21st century ideas. DEP is proud to highlight its existing line of user-friendly brownfield initiatives, especially PA SiteFinder. Financial Resources for the Environment (FRE) and the Environmental Guardian Trust are two studies currently underway with the goal of helping to advance land recycling both in Pennsylvania and across the country. Answering the challenge of limited private sector financing to support brownfield redevelopment, FRE is a collaborative partnership among DEP and members of the financial community aimed at

PA SiteFinderHomepage

gathering private sector funding earmarked for restoring impaired lands to productive use. And, in the interest of ensuring that environmental safeguards are monitored and maintained over time, DEP contracted with MGP Partners to create the Environmental Guardian Trust, which will provide long-term stewardship for properties requiring institutional and engineering controls to maintain the success of the cleanup.

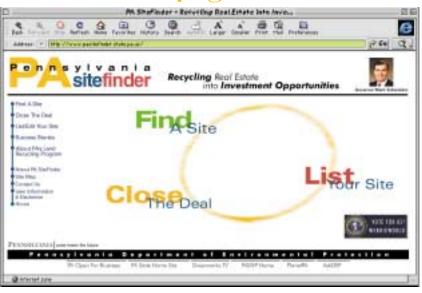
These products of the present and near future reflect DEP's understanding and commitment to a standard of environmental excellence framed by smart growth and 21st century economic development opportunities. DEP's goal is to balance the playing field, so brownfield development will be seen not only as the **right thing** to do, but also the **smart thing** to do.

PA SiteFinder — The Ultimate Guide to Brownfields

PA SiteFinder is a free online real estate directory that positions users within a few clicks of hundreds of properties available for sale or lease in Pennsylvania. The property listings include pertinent information for businesses such as location, square footage, property condition, zoning, transportation access, available tax credits and incentives. Photographs are frequently available, and the property listings can be emailed or downloaded to others involved with the site selection process. Its unique design is easy to use and navigate, with search capabilities based on criteria such as price, location and infrastructure.

Market Properties Easily with PA SiteFinder

It is also free to list Pennsylvania brownfield sites for sale or lease on the website. Once the sites are listed, customized site brochures can be downloaded, printed and distributed as marketing pieces. PA SiteFinder benefits both public and private parties.



Financial Assistance and Incentives at Your Fingertips

Once users have identified a brownfield property, financial assistance and incentives are at their fingertips to redevelop the site. PA SiteFinder can help make the connection to a host of federal and Pennsylvania financial assistance programs that offer support and technical assistance for brownfield remediation. Over the past six years in Pennsylvania alone, private companies, municipalities and non-profit organizations have received approximately \$45 million to assess and cleanup brownfield sites.

Many sites are being listed as the information is gathered under the Land Recycling Program's Brownfield Inventory Grants (BIG) program. With BIG, municipalities and other local government entities are compiling information about available properties and posting them for sale. Private parties, including owners, bank real estate foreclosure departments and brokers, also may list properties for sale without charge.

PA SiteFinder received an International Association of Business Communicators (IABC) Washington chapter Silver Inkwell Award in FY 2001. The site was selected out of 300 entries as an "outstanding example of communications excellence."

Reach a new market and list your commercial sites at www.PASiteFinder.com. Bookmark this

Reach a

new
market
and list your
commercial
sites at
www.
PASiteFinder

.com

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For more information about **PA SiteFinder**, contact DEP at (717) 783-7816 or email landrecycling@state.pa.us.

The \$30 million, 460,000 square-foot UPMC Sports Medicine Complex is the first of several new ventures taking root on an old industrial site along the Monongahela River in Pittsburgh. Jerome Dettore, executive director of the Urban Redevelopment Authority of Pittsburgh and Martin Knuth, an environmental consultant with Civil & Environmental Consultants Inc., stand proudly outside the joint training facility for the University of Pittsburgh Panthers and the city's NFL team, the Pittsburgh Steelers.

financing with existing public sector sources at the local, state and federal levels, FRE will have a major impact throughout Pennsylvania and create a national model.

Core sponsors include DEP, the Federal Reserve Banks of

Philadelphia and Cleveland, Fleet Bank and PPL Corp. The three lead funders — DEP, the William Penn Foundation and the Vira I. Heinz Endowment — generously have provided funding to establish FRE as a new financing entity. William F. Hecht, chairman, president and CEO of PPL Inc. and James J. Lynch, chairman and CEO of Pennsylvania Fleet Bank, serve as co-chairmen of the 60-member executive task force, which is composed of senior bank, corporate and community leaders who will develop and guide the multi-million dollar lending vehicle.

The task force's initial research confirmed the group's original expectation that Pennsylvania offered a regulatory climate that was especially conducive to brownfield redevelopment. The combined effect of Act 2 (the statute regulating cleanups in the Commonwealth) and Act 3 (the statute providing protection for financial institutions lending to contaminated sites) convinced the task force that Pennsylvania offers positive incentives to developers and site owners interested in reusing or expanding operations on brownfields.

The task force engineered a needs assessment committee to conduct market research targeting the concerns of bank lending programs, private investment initiatives and public sector programs administering federal and state level funds. Notably, the results of the assessment concluded that many viable brownfield redevelopment projects are not receiving sufficient funding through conventional financing and confirmed the value of establishing a financing intermediary.

The goal of FRE is to serve as a permanent and self-sustaining financing source to attract investments and loan capital from banks and corporate participants supporting brownfield

For more information about the

UPMC Sports Medicine Center see,

Showcase Site, Southwest Region, 'Sports Medicine Complex Brings New Life to Waterfront.' site and come back often to review new listings that match your search criteria.

Financial Resources for the Environment (FRE)

"To take the Land Recycling Program to the next level, we need increases in capital for brownfield redevelopment and other green initiatives," said former DEP Secretary James M. Seif. "Our program has surpassed its federal counterpart, but it needs investors from the private sector for Pennsylvanians to truly take full advantage of the opportunities presented by brownfield redevelopment."

Through market research, DEP discovered a strong interest among the financial community in providing additional capital to spur further advances in brownfield reuse. Toward that end, DEP and the financial community are currently collaborating on a study and analysis of the feasibility of establishing a public purpose financial intermediary in Pennsylvania that could make loans available to support brownfield redevelopment. A consortium of 40 banks, utilities and corporations, formed Financial Resources for the Environment (FRE) to study and evaluate increased lending and venture capital opportunities for brownfield redevelopment and other worthy environmental projects in Pennsylvania. By leveraging new private sector

For more information about FRE or providing capital for this project, contact Michael Brown of Fleet Bank at (215) 836-3810 or DEP at (717) 783-7816.

projects. It also will offer technical assistance to project sponsors aiding in the remediation process.

The task force is in the final planning phase. Next steps include:

- ## Finalizing the structure and parameters of the new financing vehicle;
- Transforming policies into an operational entity;
- Reviewing and finalizing the draft mission, project eligibility criteria, underwriting guidelines and pricing policies; and
- Identifying staff to administer the program, including locating a national executive director to lead the new organization and carry out its mission.

Environmental Guardian Trust

The Environmental Guardian Trust Pilot Study is an ongoing initiative to examine the feasibility of using a private trust to assume the management and legal responsibility for institutional and engineering controls (collectively "proprietary controls") at Superfund sites, Resource Conservation and Recovery ("RCRA") sites and brownfield sites in Pennsylvania.

Proprietary controls are often critical components of the environmental remediation and closure process and either are approved by both state and federal governments or recognized by each to ensure short- and long-term protection of human health and the environment. Almost all risk-based corrective action cleanups require the creation, implementation, monitoring and maintenance of proprietary controls. The viability of these controls is crucial to the successful closure of these sites.

DEP, U.S. EPA Headquarters, Office of Solid Waste and Emergency Response and EPA Region III are sponsoring a pilot study to directly assess whether the challenges presented by the continued maintenance and assurance of proprietary controls can be addressed through the establishment of a public/private trust.

The pilot study's objectives are as follows:

- To research a model for an Environmental Guardian Trust that can be implemented in Superfund, RCRA, brownfield and other similar programs with minimal use of public funds;
- To research the design of safeguards and standards to ensure proper management and accountability of all funds held by the Environmental Guardian Trust;
- To research how the Environmental Guardian Trust's rights and obligations relating to proprietary controls can be maintained privately with government oversight;
- To research the financial requirements for the Environmental Guardian Trust specifically relating to the necessary financial assurances to ensure monitoring, reporting, compliance and the correction of individual site problems;
- To research the feasibility of the Environmental Guardian Trust as the appropriate public/private institution for the stewardship of proprietary controls in Pennsylvania;
- To study the feasibility of integrating existing sites that have proprietary controls into the Environmental Guardian Trust in Pennsylvania;
- To research the feasibility and cost of developing a database and website that functions as an information repository for local governments to access and monitor; and
- To research the feasibility of replicating the Environmental Guardian Trust model on a state, regional and national scale.

The pilot study and an analysis of the objectives will be completed in the early spring of 2002.



For more information about the **Environmental Guardian**

Trust, contact Bruce Reshen of MGP Partners at (203) 399-6622 or DEP at (717) 783-7816.

Eighteen new manufacturing companies have set up shop on a 40-acre former brownfield site known as the Stackpole site in St. Marys. Robert Floravit of Elk County Heat Treaters, one of Stackpole's tenants, steam treats a variety of components used by customers including GM, Chrysler and John Deere.

For more information about the Stackpole site

see, Showcase Site, Northwest Region, 'New Companies Thrive in Elk County.'

Raising public awareness of land recycling *opportunities* and promoting the environmental and economic benefits are hallmarks of the Land Recycling Program.

Reaching Out

DEP is committed to providing the necessary resources to assist in transforming brownfields into environmental and economic success stories in Pennsylvania. Last year, with the goal of taking on a more active role as a business partner at the brownfield redevelopment table, DEP completed a **market research** study focused on improving program outreach and implementation for the Land Recycling Program. This year, DEP put the recommendations from that study to work, leveraging opportunities for program improvement, while at the same time reinforcing program strengths.

Q2 Market Research of Yardley, Bucks County, conducted the study, which involved in-depth interviews with 100 buyers, sellers, attorneys, environmental consultants, lenders, insurers and local government representatives about their experiences with the Land Recycling Program. The research was conducted to better understand the needs of these market segments and to

provide DEP with ideas about how better to reach and support the diverse stakeholder groups.

DEP's outreach efforts included the development and distribution of publications and communications materials, contributions to trade journals and advertising in trade publications. And, Land Recycling Program staff members participate in a number of national and local trade shows and speak at numerous public and private events.

New program materials also are in development that will reinforce successful tools, educate the community and assist in recruiting new program participants.

Marketing Materials

Raising public awareness of land recycling opportunities and promoting the environmental and economic benefits of brownfield redevelopment in Pennsylvania are hallmarks of the Land Recycling Program. Pennsylvania continues to be a leader in land recycling initiatives. This year, DEP distributed more than 7,000 Land Recycling Program brochures and annual reports to update program clients, educate new audiences, generate program interest and showcase the proud results of redevelopment projects.

In addition, DEP aggressively is marketing the value of Pennsylvania land opportunities for locating and expanding businesses. This marketing campaign included placing advertisements in several national magazines and trade journals, including *Area Development*, *Brownfield News* and *Site Selection*. Ads also appeared in regional business publications, such as *Central Pennsylvania Business Journal*, *Philadelphia Business Journal* and *Pittsburgh Business Times*. DEP currently is redesigning the Land Recycling Program advertisements to adapt the program's message to the changing atmosphere of today's business environment.

If you are interested in placing an ad or an article about the Land Recycling Program in your trade industry's publication, contact DEP at (717) 783-7816 or email landrecycling@state.pa.us.

Internet Savvy Tools

Information is power. The Land Recycling Program recognizes this and continues to strive to empower communities by providing them with online access to the latest information and best practices in brownfield redevelopment.

Land Recycling Program Website

This past year, DEP designed a new website to share information about this innovative program with the world. This year, the Land Recycling Program's website registered more than 40,000 hits. In 2001, the Land Recycling Program is updating its website to make information even easier to find and simpler to use. The website includes case studies and helpful tools, such as a sample Buyer/Seller Agreement, information on how to participate in DEP's Key Sites Initiative, updates on the federal Brownfield Tax Incentive and a link to PA SiteFinder. Keep an eye out for the new and improved site.

Sharing What Works

In 2001, DEP sought to increase the visibility of the Land Recycling Program and its initiatives by openly discussing the program with government leaders from across the United States, as well as leaders from Canada and Scotland. Representatives shared similar stories of today's environmental challenges rooted in historical industrial backgrounds.

To date, brownfield redevelopment initiatives have emerged in 46 out of 50 states. As brownfield and voluntary cleanup programs have gained popularity across the country, states like California, Connecticut, Kansas, Kentucky, Massachusetts, Missouri, New York, Ohio, Texas, Utah, Virginia and West Virginia are looking to Pennsylvania's three-bill legislative package for guidance in developing their own remediation programs. Puerto Rico and New York City developers and planners also have shown an interest in Pennsylvania's approach to cleanups and redevelopment.



From brownfield to feast. A Giant Supermarket worker pre-

Workshops and Conferences

Workshops and conferences continue to be a popular way of increasing the Land Recycling Program's visibility and sharing information with small groups of clients, including consultants, developers, attorneys, the financial and real estate communities, economic development agencies, business and industry groups and others. Client workshops planned for early 2002 will address changes to Chapter 250 regulations and updates to DEP's Technical Guidance Manual.

Deal Flow 2001 — A National Marketplace for Brownfield Transactions

DEP co-sponsored the Deal Flow 2001 conference and annual meeting in Chicago in April. The conference is a marketplace for brownfield properties, bringing together property owners, developers, buyers, lending institutions and transactional support personnel to facilitate brownfield deals and redevelopment.

DEP showcased more than 250 brownfield properties available for sale or lease on PA SiteFinder, the newly debuted interactive webbased directory of brownfield sites and services in

Visit the Land Recycling Program's website at www.dep.state.pa.us (directLINK "Land Recycling") or contact the program's information request line at (717) 787-6264.

For more information about training, visit the Land Recycling Program's website at www.dep.state.pa.us (directLINK "Land Recycling") or email the program at landrecycling@state.pa.us to have your contact information added to the mailing list.

mation about

the Metroplex

Shopping

Center see.

Showcase Site.

Southeast Region,

'Shop on Top of an

Old Industrial Site,

Center Turns Dust

into Dollars.'

Metroplex Shopping



"Pennsylvania Avenue" was home to DEP, PA SiteFinder and EDAs from around the state at the Mid-Atlantic Deal Flow in Philadelphia. The event was mutually beneficial for property buyers and sellers looking to strike a deal.

California, Connecticut, Kansas, Kentucky, Massachusetts, Missouri. New York, Ohio, Texas, Utah, Virginia and West Virginia are looking to Pennsylvania for guidance in developing their own remediation

programs.

Pennsylvania. One attendee, Jon Edelstein, with the City of Philadelphia, joined DEP in showcasing dozens of brownfield sites available for redevelopment and was successful in meeting with developers interested in doing business in the city.

Pennsylvania's Land Recycling Program was recognized at the conference as a national leader in brownfield redevelopment. DEP's commitment to transforming vacant and underused sites into social and economic opportunities, while enhancing and protecting the Commonwealth's environment was applauded.

Mid-Atlantic Deal Flow 2001 — A Marketplace for Brownfield Transactions!

DEP, in partnership with the New Jersey
Department of Environmental Protection and the
National Brownfield Association, sponsored the
first-ever Mid-Atlantic Deal Flow Conference at
Penn's Landing in Philadelphia in February.
Former DEP Secretary James M. Seif provided
the keynote address to the conference's 500
attendees. "Once again, Pennsylvania is leading
the nation in promoting economic development
by recycling former industrial sites," Seif said. "The
opportunities lie within our neighborhoods and
communities. It is our job to make the road to
redevelopment smooth and clear."

One of the main events at the Mid-Atlantic Deal Flow conference was the launch of PA SiteFinder. Former Secretary Seif presided over a ceremonial ribbon-cutting to unveil the site, previously called the Pennsylvania Brownfields Directory. The cutting-edge PA SiteFinder is an updated, full-service website where property owners can post

detailed information about the brownfield sites for sale. Developers and other property buyers can use PA SiteFinder to search for suitable locations. PA SiteFinder also allows users to access financial and technical assistance.

Informative panel discussions included representatives from New York, New Jersey, Delaware and Maryland who highlighted the redevelopment experiences of private sector insurers, developers, lenders and administrators in their respective states.

In its state cooperative role, DEP provided scholarships for 10 regional economic development agencies (EDAs), representing 21 counties, to exhibit their properties at the conference. These EDAs, along with various other Pennsylvania-based companies, exhibited their properties on "Pennsylvania Avenue" — an aisle of booths in the exhibition hall specifically dedicated to showcasing Pennsylvania properties. The following EDA representatives participated at the conference: Rob Swales, Clearfield County Department of Planning and Development; Steve Mitchell, Cornerstone Redevelopment Group (representing multiple counties from Western Pennsylvania); Monica Brower, Economic Redevelopment Corporation of Erie County; Debbie Walter, Johnstown Redevelopment Authority; Phyllis Stellfox and Rebecca Secrist, Lancaster County; Chad Helmer, Lehigh Valley Land Recycling Initiative; Jon Edelstein, Philadelphia Department of Commerce; Bob White, Redevelopment Authority of the County of Bucks, Duane Mohney, Redevelopment Authority of Cambria County; and Carol DeStefano, City of Hazleton.

These exhibitors were excited about the opportunity to display their available properties at the

conference, and each collected valuable information from the plenary sessions. Most made excellent contacts with various members of the lending and development communities to assist them with their brownfield transaction needs. A number received follow-up inquiries regarding properties they exhibited and informal feedback following the conference. All indications are that participants are looking forward to attending next year's show.

Already, plans are underway for the 2002 Mid-Atlantic Deal Flow Conference scheduled for June 5 and 6 at Penn's Landing in Philadelphia. So mark your calendars!

Brownfields 2000 — Research & Regionalism Revitalizing the American Community

Land Recycling Program representatives participated in the U.S. Environmental Protection Agency sponsored Brownfields 2000 Conference held in Atlantic City in October. This conference is the largest of its kind with more than 3,000 attendees. DEP participated in panel discussions, provided remediation workshop tips and exhibited case studies and program information.

Tom Fidler, manager of the Land Recycling and Cleanup Program, moderated a panel discussion about new brownfields initiatives in Pennsylvania, providing an overview of Pennsylvania's program and covering new initiatives dealing with institutional controls, multi-site cleanups and financing options.

The Phoenix Awards

DEP continues to serve as a primary sponsor of the Phoenix Awards, which were created in 1997 to honor groups that redevelop significant brownfields sites across the country. The award recognizes **innovative**, **yet practical remediation** projects that bring blighted, old commercial and industrial sites back into productive use. While these projects serve as models for other communities, the awards also provide a forum to showcase and publicize successful solutions to a nationwide concern.

Another first for Pennsylvania.
The launch of PA SiteFinder —
the ultimate guide to brownfields —
was a highlight of the Mid-Atlantic
Deal Flow Conference in Philadelphia.



PA SiteFinder allows our organization to promote valuable brownfield real estate to companies seeking to take advantage of our region's strategic location, business assistance and quality of life.

Ray Suhocki
 President and COO
 Lehigh Valley Economic Development Corporation

One winner is selected from each of EPA's 10 regions. In addition, winning categories are based on the magnitude of the problem, use of innovative techniques, cooperative multiple-party efforts and long-term economic and community impacts. Winners receive a Phoenix Award — a custom-designed crystal trophy — national publicity in a variety of professional journals and newspapers and special recognition to highlight their success. Phoenix winners also showcase their projects at the annual Brownfields Conference.

The Huntington Industrial Park of Huntington, West Virginia (Region III) was the 2000 Phoenix Award grand-prize winner. The former West Virginia glass manufacturing plant became vacant when the Owens-Illinois Glass Plant closed its doors in December 1993 and more than 630





For more information about the **Phoenix Awards**, visit www.phoenixawards.org.

DEP embraces and promotes a positive attitude toward the reuse of old industrial sites.

The Land Recycling Program gives investors a strong sense of security and confidence as they invest in real estate located on brownfields.

— **Jerome Dettore**Deputy Executive Director
Urban Redevelopment Authority of Pittsburgh

workers lost their jobs. Huntington Municipal Authority took title of the 41.8-acre property in 1997 and began redeveloping the site into a multi-tenant industrial park.

The first tenant to announce its move into the new industrial center brought 300 new jobs to the area. To this community, which thought there would be no end to the downward population spiral and job scarcity, this project generated a new sense of hope and pride in an industrial park that it helped to plan. Since then, three other companies have moved into the Huntington Industrial Park, creating more jobs for the people of this community. Site remediation took three years and cost \$7.7 million. Financing secured from a myriad of federal, state and local sources helped cover the acquisition cost and operating costs for two years.

Louisville, Kentucky Chamber of Commerce

DEP's Land Recycling and Cleanup Program Manager, Tom Fidler, spoke about Pennsylvania's Land Recycling Program before the Greater Louisville Chamber of Commerce and local and state officials in Louisville, Kentucky. The presentation showcased Pennsylvania's standards, initiatives and successes in brownfield redevelopment as an example for other states to follow.

Tom Fidler provided information about Pennsylvania's award-winning program and how to make this type of legislation a reality in Kentucky. No stranger to brownfield redevelopment, Kentucky already boasts a successful brownfield remediation project. The innovative and extensive remediation involved the conversion of an old railroad-switching yard into an outdoor sports complex — the University of Louisville Stadium — and earned Kentucky the Grand Prize at the 1999 Phoenix Awards. Completed without the aid of a state voluntary cleanup program, this community and local government-supported initiative brought the issue of brownfield redevelopment to the attention of Kentucky residents and officials. Kentucky officials used the Pennsylvania Land Recycling Program as a model for legislation adopted by the state earlier this year.

Pennsylvania Land Recycling Program Related Program Successes

Key Sites Initiative

The Key Sites Initiative uses state-funded contractors to conduct environmental site assessments and prepare remediation cost estimates to encourage and facilitate the voluntary cleanup and reuse of abandoned industrial properties in primary redevelopment locations. The program's goals are to foster the cleanup of environmental contamination at previously used commercial and industrial sites and bring the environmentally impaired properties back into productive use for Pennsylvania's communities.

The Key Sites Initiative creates **partner-ships** between local economic development agencies and DEP. The local economic development agencies identify sites having the greatest potential for reuse, and then DEP conducts site assessments and draws up plans for the cleanups.

Priorities for funding are given to properties based on the following criteria:

- **SE** Potential for redevelopment;
- **Site** has a prospective purchaser;
- Contamination is reasonably suspected or known to exist;
- **Solution** Project will result in the remediation of contamination to the environment;
- Present owner did not contribute to the contamination; and
- **\$\$** Local or regional development priorities exist.

DEP's regional offices can handle requests for a Key Site Project directly from municipalities and economic development agencies. When a request for Key Sites assistance is initiated in a regional office, a copy should be forwarded to the DEP Central Office, Land Recycling Program.

If you have a **potential Key Site**, contact DEP at (717) 783-7816, email landrecycling@state.pa.us or contact your local DEP environmental cleanup manager.

The investigation, delineation of contamination areas and remediation cost estimates help jump-start the economic development agency's and municipality's efforts to remediate and reuse their properties that have outside parties interested in reusing them. Two examples of Key Sites projects are:

Beaver County — Big Beaver School District

Beaver Falls

The Big Beaver School District in Beaver Falls is in the process of constructing a new elementary school to replace the existing 42-year-old school building, renovating the junior and senior high school buildings and upgrading the athletic fields. During the feasibility study, their consultant undertook a Phase I investigation. The investigation found that the proposed parcel for construction of new athletic fields had a history of industrial activity before the school district took ownership. Due to limited funding, the City of Beaver Falls and the Big Beaver School District turned to DEP for assistance through the Key Sites Initiative to conduct an investigation of the soil and groundwater.

Analysis of samples taken on the property delineated areas of lead and arsenic soil contamination above the residential standard. Using the results of the Key Sites investigation, a remediation plan and cost estimate for soil remediation was prepared. With this information, the school district submitted a grant request to the Department of Community and Economic Development (DCED) to remediate the site. Some areas of groundwater contamination also were detected in the investigation. Since groundwater is not used for drinking purposes by anyone in the immediate area of the school district property, DEP will undertake further investigation next year to delineate the extent of contamination.

In the meantime, the school district is moving forward with their development plans and is excited about the prospect of providing new facilities to the students, in a safe environment.

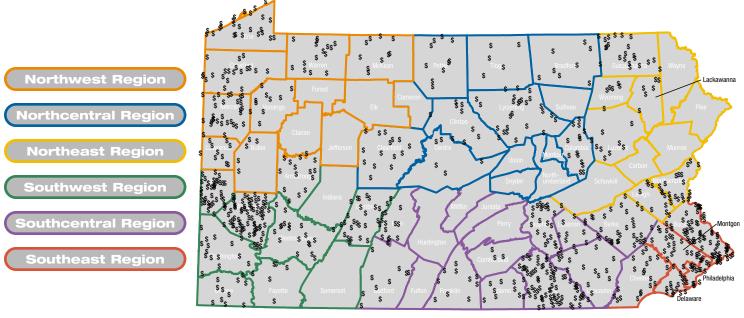
Luzerne County – Ashley Railroad Yard *Ashley Borough*

This 76-acre site in Ashley Borough, Luzerne County is served by a short line railroad that

A community
may leverage
the Key Sites
Initiative to
recycle
sites with
the greatest
potential
for reuse in
their area.

INDUSTRIAL SITES REUSE PROGRAM Financial Assistance

FY 1995 - FY 2001



\$ Financial Assistance Recipients

Financial Assistance per year



connects to two Class I railroads, the Canadian Pacific and Norfolk Southern. In addition, the site is within one mile of Interstate 81 and is in a Keystone Opportunity Zone (KOZ) making it a prime location for commercial and industrial redevelopment.

A Phase I investigation conducted by the Luzerne County Redevelopment Authority determined that industrial activity had taken place on part of this property. An investigation of the soils on the property was required before developers would even consider this property. The Luzerne County Redevelopment Authority tapped into DEP's Key

Sites Initiative for assistance. The field investigation started in late spring and was completed in early summer of 2001. DEP is awaiting the results of the laboratory analysis. After the data is evaluated, a report will be prepared and will include recommendations for remediation action necessary and projected costs. With this report in hand the Luzerne County Redevelopment Authority will be able to finalize the development plans for the property and move forward with the project.

Letters of Intent and inquiries should be directed to the appropriate Regional Environmental Cleanup Manager.

Industrial Sites Reuse Program (ISRP)

Grants and low-interest loans are available for environmental assessments and remediation of former industrial sites. The Pennsylvania Department of Community and Economic Development (DCED) administers the program and provides grants to municipal and local authorities, nonprofit economic development agencies and similar organizations. Low-interest

For more information about funding, contact DCED at (717) 787-7120 or check out DCED's website at www.inventPA.com.

loans are available to private parties, with current interest at two percent.

The maximum amount available under grants and loans is \$200,000 for environmental assessments and as much as \$1 million for remediation, but will not exceed 75 percent of the total cost of the assessment or remediation. Funds are awarded on a competitive basis with priority given to projects where contamination is reasonably suspected or known to exist, where there is a bona fide prospective purchaser or the greatest potential for redevelopment, where sites reside in local or regional development priority areas, where the cleanup of contamination will significantly affect the environment or where the project has secured a high level of matching investment from other private or public sources.

The ISRP has approved 256 grants and loaned or granted \$44.9 million for environmental assessments or remediation, including funds distributed through the following applicants: Regional Industrial Development Corporation of Southwestern Pennsylvania, Greater Berks Development Fund, Bucks County Redevelopment Authority, Clinton County Economic Partners, SEDA-COG Joint Rail Authority, City of Philadelphia, Susquehanna County Department of Economic Development. For a complete listing see Defining Results, 2001 Annual Report Appendices (Appendix 3).

Brownfield Inventory Grants (BIG)

Pennsylvania's municipalities and economic development agencies are identifying properties with idle or underutilized commercial and industrial facilities to offer them for sale as new economic opportunities. Many sites with attractive features — including significant acreage, warehouse space, rail spurs and ideal locations near transportation — are available all across the

For more information about **Brown**field Inventory Grants, including

grant cycle, background, instructions and an online application, visit www.dep.state.pa.us (directLINK "Land Recycling") and click "Brownfield Inventory Grants" or contact DEP at (717) 783-7816 or email landrecycling@state.pa.us.

Commonwealth. DEP applauds the local efforts and wants to continue to provide meaningful assistance in identifying and marketing these sites.

One method is administering the Brownfield Inventory Grants (BIG) program. Through BIG, DEP provides grants to municipalities counties and redevelopment authorities to inventory brownfield properties in their areas. If these properties are available for redevelopment, information about infrastructure, usable site buildings, suspected or confirmed environmental contamination and other related facts are collected and listed on PA SiteFinder, a webbased multi-site listing and information clearinghouse of Pennsylvania properties.

PA SiteFinder, located at www.PASiteFinder.com, receives frequent inquiries from developers, site locators and others searching for sites available for redevelopment and also provides information about financial and technical resources available to parties interested in buying or selling brownfield sites in Pennsylvania.

BIG grants are on a rolling cycle and provide \$1,000 per inventoried site, as much as \$50,000 per grantee, per grant cycle. There are currently 36 grantees statewide with 173 sites entered through the BIG Program. PA SiteFinder currently lists a total of 255 sites. The organizations that are stimulating economic development on brownfield properties in their communities are listed in Defining Results, 2001 Annual Report Appendices (Appendix 4).

Don't miss an opportunity to promote economic development in your community.

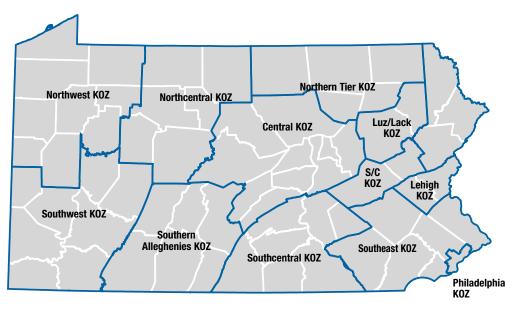
Keystone Opportunity Zones (KOZs)

Today, new opportunities are emerging all across Pennsylvania. And that's especially true of the Keystone Opportunity Zones — "the #1 Economic Development Strategy Program in the Nation" (Business Facilities magazine, Dec. 2000).

Keystone Opportunity Zones (KOZs) are attractive to buvers because virtually all state and local taxes are abated to stimulate job creation and community renewal. Businesses, property owners or



Jobs Created/ **KOZ Projects** Retained 1,348 Northwest 15 Southwest 11 221 17 1,379 Northcentral Southern Alleghenies 2 175 Northern Tier 50 Central 8 618 Southcentral 3 35 781 Luzerne/Lackawanna 5 Schuylkill/Carbon 10 1,211 Lehigh Valley 9 36 Southeast 2 210 Philadelphia 27 2,778



residents can take advantage of greatly reduced or eliminated taxes through 2013.

The program covers more than 38,000 acres of property in more than 60 counties throughout Pennsylvania. Since program inception in January 1999, more than 5,500 new jobs have been created as a result of participating in the KOZ program. It also has helped retain thousands of jobs that otherwise would have been lost.

Business Facilities magazine highlighted the success of the KOZ program. "What makes KOZ innovative is that it is a public/private, state/local partnership. Governments and people who have had no past cooperation have literally come together to form the regions," former Gov. Ridge said.

Currently, 110 projects are underway in KOZs. These special areas also receive propriety consideration for state assistance under various programs, including the State Customized Job Training Program, Infrastructure Development and the Industrial Site Reuse and Opportunity Fund.

For more information about KOZs and for a list of all the taxes that are tax-exempt, waived or offset by credits or deductions, visit DCED's website at www.inventPA.com.

Growing Greener Initiative

Growing Greener, signed into law by former Gov. Ridge in 1999, preserves farmland and protects open space; eliminates the maintenance backlog in state parks; cleans up abandoned mines and restores watersheds; and provides new and upgraded water and sewer systems.

With the help of Growing Greener funds, 4,200 acres of wetlands and 188 miles of riparian buffer are being restored around the Commonwealth. In addition, 528 miles of streams impacted by acid mine drainage are being cleaned up; 29,252 acres of abandoned mine lands are being reclaimed; and 528 miles of stream improvement structures are being built.

Growing Greener also has enabled DEP to eliminate its backlog of mine reclamation and oil and gas well-plugging projects. As a result, an additional 2,000 acres of abandoned mine lands are being reclaimed, and 770 abandoned oil and gas wells are being plugged through DEP contracted projects.

According to the Growing Greener Grants Center database, DEP received 844 applications from July 2000 – June 2001. DEP awarded 295 grant recipients a total of \$31 million. As of March

2001, the overwhelming response to the program has led to the development of 97 watershed assessment and protection plans and the implementation of 292 restoration projects.

Coupling the Land Recycling Program with the Growing Greener Initiative has **wideranging benefits** to the environment and communities. One example of Land Recycling and Growing Greener success is:

Chester County – PAEDCO PropertySoutheast Region

Delta Development Corp. purchased the 300-acre former Phoenix Steel Foundry site in Phoenixville with the intent to redevelop the site for office, residential and light manufacturing purposes. During its years of operation, the steel foundry had used the flow of nearby French Creek to drive turbines, and as a result, the creek and its streambanks on the property were damaged. After remediating the soil contamination on the site, Delta Development Corp. applied for and received a Growing Greener grant for the stabilization of French Creek. Stabilizing the creek bank is vital to the safety and aesthetic of the site. Delta Development Corp. intends to use the Growing Greener grant to determine the method of stabilization to be used on the creek and to help fund construction of the necessary elements to stabilize the creek banks. During redevelopment, new sewer mains and storm water structures will be created. A Notice of Intent to Remediate has been filed for French Creek Center East and West.

The Growing Greener legislation allows DEP to allocate \$240 million over five years, distributed as follows: \$37.5 million for the first year of the program and \$50.5 million for four years after that. The money is used for watershed restoration and protection, abandoned mine reclamation and abandoned oil and gas well-plugging projects. Growing Greener grants may be combined with other funds to develop brownfields or combinations of brownfields and old mining sites called "greyfields."

For more information about

Growing Greener grants visit

www.GrowingGreener.org.

Methyl Tertiary-Butyl Ether (MTBE) Response Activities

MTBE is a gasoline additive that has been used as an octane enhancer since the phase out of lead in the late 1970s. This additive allows for the more complete burning of gasoline. After the passage of the Clean Air Act of 1990, MTBE became widely used as a gasoline oxygenate.

Because MTBE is typically found in or associated with gasoline spills, many individuals are concerned about the effects it has on the soil and groundwater. The chemical properties of MTBE cause it generally to travel faster and farther into the soil and groundwater than other components of gasoline.

Pennsylvania has established MTBE objectives to better understand the effects and uses of MTBE and to discover what risks, if any, it poses for people. One objective is to examine the potential risks associated with the presence of MTBE in ground and surface water and **increase public awareness** in an effort to assist in monitoring the pervasiveness of MTBE. Pennsylvania also wants to explore alternatives to MTBE in reducing air toxin emissions and pollutants that form ground level ozone.

Over the last few years, Pennsylvania has taken several actions to fulfill these objectives. A Pennsylvania DEP work group has been created to examine the risks of MTBE in ground and surface water, as well as alternatives to reducing air toxic emissions. The group is conducting an ongoing statewide assessment of Pennsylvania's groundwater jointly with the U.S. Geological Survey (USGS). Pennsylvania also is working with EPA and other Region III states to address specific concerns regarding the protection of drinking water supplies and to conduct a pilot study in Virginia. The goal of this evaluation is to examine the distribution and concentration of MTBE in groundwater and to estimate the vulnerability of groundwater in hydrogeologic settings in Pennsylvania. In addition, Water Supply Management representatives digitized a map to show all reported releases from storage tanks since 1988 by municipality (approximately 14,000) to support DEP's efforts in determining the magnitude of the problem.

DEP awarded \$86 million from July 2000– June 2001 through Growning Greener for watershed protection and restoration.

Pennsylvania's MTBE Strategy Objectives

- Examine potential risks associated with the presence of MTBE in ground and surface water.
- Enhance DEP's cleanup program for tank releases and gasoline spills to prevent continued contamination of groundwater resources with MTBE.
- **SET IN PROOF STATE OF STATE O**
- Expand data collection on MTBE occurrences in public and domestic wells in cooperation with local government and the public.
- 28 Participate in national and regional efforts to develop a plan that addresses the environmental and health issues involved.
- **SECULT SECULT** SECULT SECURT SECURT SECURT SECURT SECURT SECURT SECURIT SECURT SECULT SECURT SECURT
- **SET IN EXECUTE:** Enhance public drinking water monitoring, assessment and protection programs.
- Improve domestic drinking water quality by evaluating the cause and effect relationship of spills and releases of gasoline to groundwater quality.
- **SET :** Enhance programs for enforcement of underground storage tank replacement and upgrade programs.
- Secus program and regional resources on enforcement of leak detection and operational requirements to prevent MTBE releases.

Storage Tank Cleanups

DEP's involvement in remediation activities under the Land Recycling Program increasingly consists of facilities with storage tanks. Tank cleanup sites may range from the corner gas station to large aboveground storage tank (AST) complexes.

Since 1995, **3,084 storage tank** cleanups have been completed under the Land Recycling Program. A total of 324 sites were completed between July 2000 and June 2001.

For more information about MTBE and Pennsylvania's MTBE

strategy, visit DEP's website at www.dep.state.pa.us (directLINK "MTBE").

The Division of Storage Tanks includes sections on Technologies and Permitting and Registration and Administrative Services. In order to prevent storage tank releases, the Storage Tank and Spill Prevention Act (Act 32 of 1989) requires that all companies and individuals that conduct storage tank handling or inspection activities be certified. Through certification, DEP can ensure knowledge, experience and performance by individuals who install, modify, remove and inspect regulated storage tank systems facilitating and reducing the number of releases attributed to faulty installation.

Responsible Party Cleanups

The Storage Tank and Spill Prevention Act requires responsible parties (RPs), primarily tank owners and operators, to fund and clean up site contamination under the Corrective Action Plan (CAP) regulation. Since 1989, DEP has tracked the status of 13,584 regulated storage tank release sites.

Act 32 also authorizes the creation of the Underground Storage Tank Indemnification Fund (USTIF). Established in Feb. 1994, USTIF is financed by fees paid by all owners or operators of registered underground storage tanks (USTs). USTIF money is only available for leaks that occurred after Feb. 1, 1994. Funds are not eligible to be used for the repair, replacement or maintenance of USTs. The fund is administered by the Department of Insurance, Bureau of Special Funds.

Under the Land Recycling Program, three types of cleanup standards are available to RPs: background standard, statewide health standard and site-specific standard. The Land Recycling Program's technical manual provides guidelines for remediation using these standards. RPs are relieved of further liability if they follow one of these remediation standards.

Publicly Funded Cleanups

Although most storage tank cleanups have responsible parties, some sites require DEP or EPA involvement. DEP or EPA take action to prevent degradation of the environment, protect human health and prevent further exposure to contamination when the RPs will not cooperate. DEP or EPA also may take necessary actions to remediate sites in circumstances of bankruptcy or insufficient funds on the part of the RPs.

Between July 2000 and June 2001, 21 state- and federally-led actions (including site cleanups, assessment activities or monitoring activities either prior to or after remediation) were initiated, continued or completed. Under the Storage Tank and Spill Prevention Act (as amended Act 13 of 1998) DEP receives a maximum of \$5.5 million annually from USTIF to cover costs for corrective action activities at regulated underground storage tank release sites.

DEP's Division of Storage Tanks administers the Pollution Prevention Grant Fund under Act 13 of 1998. Also known as "Pump and Plug," the fund will reimburse eligible underground storage tank owners for the cost of pumping, cleaning and plugging their tanks up to \$2,500 per tank. Each of the following criteria must be met in order to be eligible for a reimbursement grant:

- 38 Tank owners must own six or fewer regulated underground storage tanks;
- Storage tanks must be registered and all fees paid prior to closing the tanks;
- A contractor, certified by DEP in the proper category, must be used for tank cleaning; and
- The work must have been completed after July 1, 1998.

Also, DEP announced the reauthorization of the Underground Storage Tank Heating Oil Cleanup Program, a reimbursement program for tank owners who have underground tanks with a

capacity of 3,000 gallons or less used for storing heating oil for consumption on the premises where stored. The program is designed to assist with costs of taking corrective action in response to a release. The release must have occurred on or after January 30, 1998. The reimbursement is limited to the actual cost of corrective action or \$4,000, whichever is less. However, a \$1,000 deductible must be paid first by the tank owner. The reimbursement and deductible apply on a per tank basis. All reimbursements are funded through the Underground Storage Tank Indemnification Fund and up to \$500,000 per year may be available. The program expires on June 30, 2005.

County Storage Tank Cleanup Success

The following site descriptions are some of the significant state and federally-led actions conducted during the past year. The sites and their activities are listed by county and region:

Montgomery County — Blue Bell Gulf Station

Southeast Region

DEP continues its cleanup efforts from a 1998 UST release at the Wagner Blue Bell Gulf Service Station in Whitpain Township. Between 10,000 and 15,000 gallons of gasoline was released, impacting the soil and groundwater in the surrounding area. After completing the site characterization and conducting a remedial pilot testing program, DEP is moving ahead with the design and construction of a groundwater pump and treatment system capable of treating approximately 200 gallons of groundwater per minute. The treatment system will be located on township property.

The Montgomery County Health Department and the Pennsylvania Department of Health have reviewed air quality monitoring data collected from two homes that were vacated following the 1998



For more information about **storage tanks** and **financial assistance**.

visit DEP's Land Recycling and Waste Management website at www.dep.state.pa.us (directLINK "Storage Tanks"). release. Vapor recovery systems were installed at both homes, with the addition of backup generators that automatically turn on in the event of an electric power failure. Both homes are now considered safe to occupy and the owners have been notified.

DEP continues the operation and maintenance of two interim remedial pump and treat systems and the monitoring of area groundwater and surface water. Construction of the treatment system is expected to commence in the latter part of 2001.

Chester County — Lawrence Service Station

Southeast Region

In Jan. 1986, the Department of Environmental Resources (DER, now DEP) was notified by the Chester County Health Department that the drinking water well located at 810 Baltimore Pike had been contaminated by gasoline. Subsequent investigations by DEP revealed that at least three of approximately 10 drinking water wells located along this stretch of Baltimore Pike were contaminated with gasoline. Samples were collected from all of the wells. The product samples then were compared to samples collected from the underground storage tanks at the Lawrence service station and Mobil station across the street. This comparison indicated that the Lawrence station was the source. DEP funded the installation of a water line to connect five of these properties, all of which were either contaminated or soon to become contaminated. to the Chester Water Authority's public water supply system. In March 1988, a second release occurred at the station resulting in a sudden loss of 1,500 gallons of unleaded gasoline. In 1992, DEP contracted with R. E. Wright Associates to perform a site characterization in the area surrounding the station. A feasibility study also was completed to determine the best remedial alternative for the site.

In May 2000, DEP tasked Ogden Environmental to conduct groundwater sampling of all monitoring wells and drinking water wells remaining in the area. It was discovered that the compound MTBE was associated with the release that occurred at this station. It was

determined that at least three private wells still in use were contaminated with MTBE. The department installed a water main and services to the four remaining down-gradient private wells, three of which had become contaminated with MTBE. This water line was installed in the spring of 2001. A total of nine properties have been connected to the public water supply since the original contamination was encountered in 1986.

Schuylkill County – Hartranft Texaco *Northeast Region*

Recent monitoring data indicates that the BTEX plume has diminished significantly since the initiation of remediation. DEP believes that the remediation system has proven very effective. Currently, DEP is considering conducting an evaluation of the plume and the need to reconfigure the capture zone in order to expedite the continued recovery of the contaminant plume.

Luzerne County — Lehman Sunoco Northeast Region

A new remedial treatment plant is currently being designed to replace the temporary treatment plant that was constructed by EPA in October 1994. The design phase is 90 percent complete. Construction of the new treatment plant is expected to begin in August 2001. Quarterly sampling of the monitoring wells and monthly sampling of the residential/business wells continues.

Northampton County – Hokendauqua Creek Northeast Region

Quarterly monitoring well sampling at the creek continued until May 1, 2001. Although concentrations within the monitoring wells have shown a consistent decrease in concentrations, three additional seeps up-gradient from the original one have now appeared. The probable cause of these new seeps is that the oxygen-releasing compound (ORC) in these wells is acting as a barrier, forcing the contamination to find an alternate pathway.

DEP met with EPA's on-site coordinator concerning this matter. It was agreed that a

feasibility study needs to be generated for the following remedial alternatives:

- Placement of additional ORC wells to act as an oxygen barrier, preventing the seeps and remediating groundwater contamination; and
- Installation of a pump and treat system to contain the contaminant mass and remediate the contamination.

The department anticipates that this feasibility study will be completed by the end of summer 2001.

Luzerne County — FreelandNortheast Region

DEP received a final removal action report in January 2001, which indicated the presence of two contaminant plumes: petroleum and chlorinated solvents. The petroleum contamination source has been identified as emanating from a former Exxon facility located at the corner of Centre and South Streets. The owner of this property has been asked to remove the free-floating product and address the dissolved phase. DEP officially closed its statelead status on the petroleum issue on April 10, 2001. The chlorinated solvent impact, which is not attributable to the Exxon site, has been referred to the Hazardous Sites Cleanup Program for follow-up activities.

Lackawanna County — Jermyn Mill & Grain

Northeast Region

Quarterly groundwater samples have been collected from monitoring wells installed on site. Sampling has indicated that contaminants present in the groundwater exceed statewide health standards. There also is evidence that this contamination has migrated off site. DEP is currently developing a work plan to conduct off-site characterization in order to determine the extent of groundwater contamination exceeding the statewide health standards.

Dauphin County — Hilltop Grocery (formerly) Southcentral Region

Site characterization activities were completed over the course of the last year. Two monitoring wells on site were found to have exceeded groundwater standards, as does one off-site domestic production well. In addition, the soil boring (adjacent to the most significantly impacted monitoring well) indicated exceedences of soil standards. The adjacent property, a private residence, has recently received new granulated activated charcoal (GAC) filters. This property is the only one recognized to have a contaminated potable well at this point in time. Also, plans have been established for conducting additional work. The supplemental tasks include the following initiatives: hook-up to the public water main for several properties, soil excavation at and around the "hot" soil boring location, continuance of quarterly gauging and sampling of monitoring wells and select potable wells, and the installation of three additional monitoring wells at strategic locations on the west side of Sand Hill Road (off site).

Lebanon County – Sandman II Truckstop *Southcentral Region*

During the last year, a remedial action plan was submitted and approved for the facility. The approved concept involves the application of groundwater depression pumping from a single, centrally located monitoring well at the site and active and passive product skimming from two separate, nearby monitoring entities. Subsequent to the approval of a final plan, several events took place in the April-May 2001 timeframe. An inversion dam was reconstructed in the tributary immediately to the north of the site, the groundwater recovery system was installed, approximately 14 truckloads of fill/soil stockpiled at the site were properly disposed of off site and permitting issues were resolved for the facility. System start-up has occurred, and the system will be operated for a full year, at which point re-evaluation will take place with respect to the effectiveness and efficiency of the technology chosen, as well as the need for continued operation.

Perry County – Kell's Korner Southcentral Region

DEP is conducting a state-directed cleanup at this former gasoline station and convenience store site in rural Perry County. A release of gasoline occurred in the early 1990s. Both free phase product and dissolved phase product have migrated beyond the site to a nearby stream and one domestic well was impacted. The responsible party completed a partial site characterization prior to the department's direct involvement. DEP has expanded off-site characterization to further delineate the extent of the groundwater plume in both the shallow and intermediate zones. DEP also completed an off-site assessment of impacts to soil. A dual phase extraction pilot study was conducted to determine the feasibility of and the design criteria for a planned remediation system. Geophysical work in the form of a very low frequency electromagnetic survey was performed in order to determine if a new domestic well could be installed to replace the affected off-site domestic well. Since the data collected showed that replacement of the well would not be feasible, DEP installed a carbon treatment system on the affected well. The department also has removed all investigation-derived waste generated by both DEP and the responsible party.

Adams County – Elicker's GarageSouthcentral Region

Elicker's Garage is a former gasoline service station. DEP completed a soil and groundwater characterization to determine the extent of contamination. Soil samples collected did not exceed the statewide health standard.

Groundwater did exceed the standard near the former underground storage tank excavation.

DEP properly disposed of contaminated soil generated by the owner during removal of the tanks, as well as the former dispenser concrete pad. Currently, the department is working on installing additional wells and conducting aquifer testing and fate and transport analysis in order to determine if an Act 2 cleanup standard can be met for groundwater.

Delaware County — 202 Island Carwash

Southeast Region

DEP continues its cleanup efforts from a 1997 gasoline release at the 202 Island Car Wash in Concord Township. DEP received a complaint of gasoline odors in potable well water from one of the residents in the Conestoga Farms neighborhood adjacent to the 202 Island Car Wash. An investigation revealed that four residential wells had levels of MTBE that exceeded DEP's standards.

In February 1998 and January 1999, DEP ordered the car wash to cease operations. The facility had to comply with DEP's Corrective Action and Release Detection regulations, conduct quarterly residential well sampling, perform filter maintenance for homes that had carbon filters and pay civil penalties. In summer 1999, DEP granted Concord Township monies to install a water line to provide public water to 75 homes in and around the Conestoga Farms neighborhood.

On February 13, 2001, an Environmental Hearing Board meeting was held on the appropriate method to conduct a risk assessment for the Act 2 submission for this site. At this hearing, consultants for 202 Island Car Wash suggested that a risk assessment toward the site-specific standard for both soil and groundwater should be conducted at this site. Upon initial review, DEP is in general concurrence with their risk assessment approach.

On June 22, 2001, DEP received an Act 2 final report from Satterthwaite Associates Inc., environmental consultant for the station owner that demonstrated attainment of a site-specific standard for benzene and MTBE in groundwater. Impacted soils at the site meet the site-specific standard based on pathway elimination.

Multi-Site Agreements (MSAs)

Pennsylvania's Multi-Site Agreements (MSAs) expand the Land Recycling Program benefits to help organizations owning more than one contaminated site or brownfield property in Pennsylvania to remediate their land in an efficient and financially sensible manner. Instead of remediating one property at a time, MSAs use the same model/approach to remediate multiple properties under one plan.

Many of these properties have a long history of ownership contributing to environmental contamination, obligating current owners to clean up the properties. These situations can present multi-site owners with the threat of liability and, in some cases, the potential for extremely high and unplanned cleanup costs.

By entering into a voluntary MSA with DEP, organizations can approach site cleanup systematically and proactively — assessing, ranking and pursuing remediations in a manner that makes sense for their bottom line and the environment.

The flexibility of the Land Recycling Program is built into the Multi-Site Agreement process; by classifying individual sites by risk, a property owner is able to prioritize cleanups and provide a cleaner, safer environment while doing it in a cost-effective and timely manner. The MSA process provides the owner with an efficient and effective means to address a portfolio of properties and provides DEP with a commitment to environmental cleanup.

Organizations establish and follow an agreed upon plan based on DEP's risk-based cleanup standards. By planning ahead and educating themselves about the state's standards, MSA owners can reduce their liability. Predictability allows organizations to direct their resources back into their businesses, rather than into court costs and legal fees.

Offering financial benefits, MSA remediation efforts create new opportunities for economic development as site reuse leads to job creation and future business growth in Pennsylvania. The cleanup work conducted under MSAs also helps enhance public health and environmental protection

throughout the Commonwealth, creating healthier and safer communities.

DEP continues to seek out voluntary agreements with organizations that own multiple sites that are based on a predictable, financially sound and results-oriented process.

BP Amoco

DEP and BP Amoco negotiated an MSA that concluded in March of this year. The agreement ensures that all 177 contaminated BP Amoco sites across Pennsylvania will either be cleaned up or have systems in place to correct any environmental problems by year's end, 2008.

Under the agreement, BP Amoco and DEP will prioritize all of the sites to ensure that those with the most severe problems are addressed first. Of all the sites, 166 are retail gasoline sites with underground storage tanks. The remaining 11 sites are petroleum-storage terminal sites for which BP Amoco has corrective action responsibilities.

The MSA addresses potential problems by establishing mechanisms for enhanced communications and a shared perspective on issues relating to site-specific direction and overall project management. The communications features include regularly scheduled site-specific meetings, statewide annual meetings for project planning and a technical oversight committee to troubleshoot and resolve technical issues.

"Environmental responsibility plays an integral role in BP Amoco's business, and this agreement is an example of the company's commitment to a clean environment," Dave Marsh, executive general manager with BP Amoco's Environmental Management Group, said. "By working together with DEP, we can do what's best for the environment, the people of Pennsylvania and BP Amoco."

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To view the BP Amoco Multi-Site Agreement, or for more information on multi-site agreements, visit DEP at www.dep.state.pa.us (directLINK "BP Amoco"). Thanks to an MSA and a unique stakeholder partnership among Penn Fuel Gas Inc., the Borough of Shippensburg, the Shippensburg Little League and DEP, a former brownfield site is taking shape — the shape of a baseball diamond. Shippensburg Little League President Todd Sherman surveys one of the finishing touches to the project — grass seedlings.



For more information about the

Shippensburg Baseball Park

see, Showcase Site, Southcentral Region, 'Land Recycling Program Hits a Home Run for Shippensburg Little League.'

The strength of the Land Recycling Program lies in its focus on end use... DEP asks the question: What are you going to do with the property? And then allows you to do the cleanup specifically for the predetermined

— Michael Hasel
Senior
Environmental
Professional
PPL Services
Corp.

end uses.

Penn Fuel Gas Inc.,(PFG)

Penn Fuel Gas Inc. (PFG), acquired by PPL Corp. in 1998, signed an agreement to investigate, and where necessary, clean up 20 industrial sites and close approximately 340 abandoned natural gas

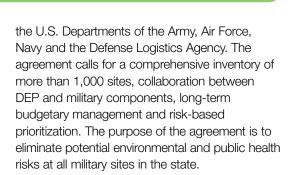
wells in 15 counties. The sites are former manufactured gas plants where coal was processed to produce gas. As natural gas became widely available, operations ceased by the mid-1960s. All of the sites now are used for other purposes.

The MSA provides for a comprehensive, flexible and system-wide approach to dealing with the sites, rather than working on a site-by-site basis. It calls for measuring cleanup progress through a "point system" and gives Penn Fuel some flexibility in determining the activities it will undertake in a given year to earn the required points. The point system, in turn, is based on addressing the highest risks earlier in the process. The agreement also covers the plugging of about 340 abandoned gas wells. As of December 2001, more than 143 gas wells have been plugged.

Over the next 10 years, PFG will investigate all 20 sites. "The agreement will allow us, in cooperation with DEP, to manage these sites in a way that is responsible to both the environment and our customers," said Terry Hunt, PFG's president and CEO.

Cooperative Multi-Site Agreement (CMSA) with the Department of Defense

In July 1998, DEP signed the first cooperative multi-site cleanup agreement in the nation with



The CMSA incorporates the public participation requirements and the cleanup standards of Pennsylvania's Land Recycling Program. In the three years, 101 sites have been resolved. In this year alone, 49 sites were remediated. There are currently 62 sites on a scheduled list that soon will be, or are in the process of being remediated. All sites are to be evaluated and cleanups commenced by September 30, 2010. Long-term monitoring at some sites may continue beyond 2010.

The military also has placed 541 sites on a List of Study Program Sites. These are sites that the military has determined need remediation or do not require remediation, but which DEP has not



For more information about the **Cooperative Multi-Site**

Agreement process followed by DEP and the military, visit DEP's website www.dep.state.pa.us (directLINK "Land Recycling").

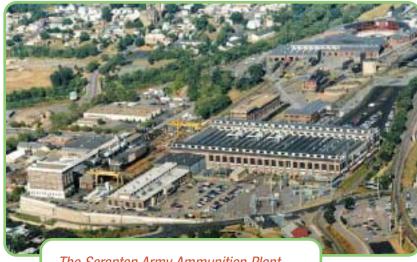
reviewed and concurred with the No Further Action (NOFA) status. Based on the military's pilot study, about 93 percent of the sites on the List of Study Program Sites should be classified as NOFA or be transferred to the Deferred List of Sites.

Through this historic agreement, DEP and the military are setting the standard for open, voluntary partnerships that emphasize flexibility in environmental cleanups. The partnership is helping to make environmentally sound and cost-effective site cleanups a reality. DEP has relied less on mandated procedures and instead, has allowed the parties to choose their own methods to achieve state standards. There has been national interest in this program, as other states want to replicate Pennsylvania's historical agreement with the military. New Jersey now is operating under a similar agreement.

Scranton Army Ammunition Plant

Over the years, the property known today as the Scranton Army Ammunition Plant has seen its share of technology. In the mid-1800s, America was in the midst of developing the very first transcontinental railroad that would link the two shores of our nation. At that time, Pennsylvania already had begun to craft railroad rails and maintain train cars at the Scranton-based facility. The Delaware, Lackawanna and Western (DL&W) Railroad owned the property along with Lackawanna Iron and Coal Co. The property continued to be used for such purposes until the Army acquired it in 1951 and converted the facility to produce large caliber steel projectiles. Shortly after, the site also began to produce ammunition, which it continues to make today.

There have been several spills in the recent history of this site. The soil beneath the two 10,000-gallon quench oil storage tanks was contaminated by a PCB spill in June 1992, a quench oil spill in October 1992 and a fuel oil spill in March 1994. It was while the Army was cleaning up from this last spill that it was discovered that quench oil had contaminated the groundwater. After cleaning up the fuel oil spill, then moving on to the quench oil contamination, the Army learned about Pennsylvania's Land Recycling Program.



The Scranton Army Ammunition Plant was the first Pennsylvania military facility to complete an installation-wide cleanup under a Cooperative MSA with DEP. All 15 parcels have met Land Recycling Program cleanup standards.

Act 2's liability relief was a key point in the Army's decision to clean up the entire site, not just the spill areas. The Scranton Army Ammunition Plant had a total of 15 sites that were of environmental concern. Chamberlain Manufacturing Corp. was the primary contractor responsible for the project.

Fuel oil-contaminated soil was excavated, followed by bio-remediation. The quench oil-contaminated soil could not be excavated, so remediation of this soil included free product removal, thermal soil washing and bio-remediation. Two years of monitoring followed to ensure effectiveness and compliance.

On July 26, 2001 the Scranton Army Ammunition Plant became the first Pennsylvania military facility to complete an installation-wide cleanup under a CMSA with DEP; all 15 sites now meet Land Recycling Program standards.

"The whole CMSA/Land Recycling Program process was new to us and to our environmental contractor, MEA Inc." Tim Tuttle, chief engineer with the Scranton Army Ammunition Plant, said. "DEP was cooperative and accommodating and helped us work through the issues and to reach our mutual goals."

Buyer/Seller Agreements

Buyer/Seller Agreements have proven to be one of the key elements of the Land Recycling

Buyers and sellers are not the only ones that benefit from Buyer/Seller Agreements.
Lenders benefit too.

Program. Relieving the liability concerns of potential buyers often can mean the difference between whether a deal gets completed or not. DEP limits liability concerns by facilitating Buyer/Seller Agreements to minimize the risks associated with purchasing environmentally distressed properties.

Buyer/Seller Agreements offer a solution to buyers who are not responsible for contaminating the properties of interest. Through this agreement, the seller agrees to remediate the site to facilitate sale of the property. The seller proceeds with property assessment and cleanup through the Land Recycling Program, (early transfer techniques allow the buyer to be protected prior to remediation) and upon completion, receives relief from liability for the site. The liability relief then is transferred to the buver, freeing the new owner from former contamination and cleanup obligations. DEP usually acts as a third party in these agreements and extends written relief to buyers early, with a covenant not to sue, and frees new landowners from liability associated with any previously documented site contamination.

The Buyer/Seller Agreement process is inherently flexible, allowing properties to be transferred to the new owner prior to the seller completing the remediation. Assessment reports are used to ensure that both parties clearly understand the nature and extent of site contamination. The seller establishes a plan for remediation in accordance with one or more of the Land Recycling Program cleanup standards. Deadlines are established in accordance with the guidelines and requirements of the Land Recycling Program.

Lenders also receive needed assurances from Buyer/Seller Agreements. Assessment and remediation plans provide certainty to the terms of the transaction. Lenders understand that DEP is granting buyers early protection and that the cleanup will occur according to an established time schedule.

For more information about

Buyer/Seller Agreements

contact DEP at (717) 783-7816 or email landrecycling@state.pa.us.

Between July 2000 and June 2001, seven new Buyer/Seller Agreements were signed, bringing the grand total of signed agreements to 72. The Buyer/Seller Agreements are negotiated in a timely manner, in contrast to the time necessary to negotiate an EPA Prospective Purchaser Agreement (PPA). EPA has signed a total of 31 PPAs within Pennsylvania and has responded to or received an additional 30 for review, comment or signature.

Hazardous Sites Cleanup Program

The Hazardous Sites Cleanup Program was established in 1988 and provides DEP with a means of protecting human health and the environment from contamination due to hazardous substances leftover from commercial or industrial operations. The Hazardous Sites Cleanup Act (HSCA) gives DEP the authority to investigate, assess and provide for the cleanup of sites that are currently releasing or threatening the release of hazardous substances or contaminants into the environment. It requires the replacement of contaminated water supplies and other appropriate response actions. HSCA also provides DEP the authority to participate in the investigation, assessment and cleanup of sites under the federal Superfund Act. In addition, HSCA allows DEP to seek and recover remediation costs from viable, responsible parties.

Generally, HSCA sites are not active, operating facilities. HSCA typically addresses abandoned industrial facilities and contaminated sites where the owner is financially unable to conduct the necessary cleanup. In these circumstances, DEP deploys state-funded contractors to investigate and assess the site.

In cases when a responsible party is financially able to remediate a site, yet chooses to ignore site conditions, HSCA also grants DEP the authority to enforce actions that ensure the site cleanup. In these cases, the responsible party either may be forced to conduct the appropriate cleanup action or reimburse DEP for DEP's expended funds.

When a contractor assesses a site, it follows a Scope of Work (SOW) provided by the regional Hazardous Sites Cleanup Program (HSCP). The SOW supplies an outline for the work to be conducted. After the work is completed, the contractor files a site assessment report. Upon reviewing the assessment, the regional HSCP project manager proposes the next course of action. DEP's proposal is based on the nature of contamination, the risk it presents and the time and monies required to remediate the site. Public opinion also is factored into the decision-making process. The response often includes the development of a remedial action plan. The remedial action may take the form of a prompt interim response, an interim response or a remedial response, based on the severity of the contamination and the timeliness of the response action. Act 2 provides the cleanup standards for the response under HSCA.

HSCP staff also coordinates with EPA on activities under the federal Superfund program. The HSCA fund provides the Commonwealth with its share (10 percent) of the cleanup costs at federally funded Superfund sites. DEP did not enter into any new State Superfund Contracts (SSCs) with EPA during the past fiscal year. However, an increase in the number of Superfund sites with construction completion has allowed DEP and EPA to amend or terminate seven existing SSCs with an increased cost of \$631,000 in statematching funds. These state-matching funds will leverage more than \$6 million in federal funds for response actions within Pennsylvania.

HSCA and the Land Recycling Program — Working Together

Northumberland County – COCA-COLA Enterprises Sunbury

The abandoned Garnier Portfolio site was a 13,000 square-foot furniture finishing facility located in Sunbury, Northumberland County. "The building was an eyesore and a fire, health, safety and environmental hazard," according to Kevin Kroculick, a sanitary engineer at DEP.

For more information about the Hazardous Sites Cleanup Program contact DEP at (717) 783-7816 or email landrecycling@state.pa.us.

From sour to sweet. Coca-Cola cleaned up this site and turned it into a parking lot for its trucks. Now, the surrounding community is happy to see Coca-Cola's bright red trucks parking there, rather than the nearby alleyway.



When DEP's efforts requiring the owners to clean up the site proved unsuccessful, the department went in to conduct a site assessment. Due to the serious health, safety and environmental threats associated with the site, DEP initiated a prompt interim response action for the consolidation, packaging, transportation and disposal of approximately 2,200 gallons of paints and other furniture finishing waste materials.

The HSCA-funded drum removal action sparked the interest of the Coca-Cola Mid-Atlantic Bottling Co., which owns and operates a facility located on an adjacent property. Coca-Cola considered the site ideal for additional parking space, and shortly after DEP's drum removal action, Coca-Cola purchased the .39-acre property at a Sheriff's sale. Coca-Cola's consultant, Atlanta-based Russell Environmental Services Inc., subsequently conducted a site assessment that revealed lead-impacted soil around the perimeter of the building — due to the high lead content found in the building's paint.

In pursuit of Act 2 liability relief through DEP's Land Recycling Program, Coca-Cola needed to

determine the extent of soil contamination surrounding the site. Adjacent to the Garnier Portfolio site is the Oppenheimer playground, which the City of Sunbury had just spent a large amount of money renovating. DEP facilitated a three-way cooperative agreement among DEP, Coca-Cola and the City of Sunbury to provide liability relief for both parties.

Coca-Cola oversaw the excavation and disposal of 252 tons of soil from the building site, and a new parking lot now provides ample off-street parking for the company's trucks. As a result, an unsightly and dangerous building on a polluted property was replaced with a new parking facility that brings the site back into productive use. The neighbors are happy to have the safety hazard removed and they are pleased to have Coca-Cola's trucks parking in the new lot, rather than in a local alley.

The site met the Land Recycling Program's standards for statewide health and was approved on October 24, 2000. Even a small site can have a big impact.

HSCA Actions for FY 2000-2001

Chester County – Camp Council RoadSoutheast Region

Groundwater from individual private wells is utilized for domestic purposes at residences near the intersection of Camp Council Road and Hares Hill Road in East Pikeland Township, Chester County. DEP sampled a total of 23 residential drinking water wells in the area near the intersection. Analyses of well water samples for volatile organic compounds (VOCs) revealed that 15 of the 28 wells sampled had levels of tetrachloroethene (PCE) above the maximum contaminant level (MCL) of five. DEP initially supplied bottled water to the 15 impacted homes. Arrangements then were made to install filter systems in the residences. An IRSC contractor, WRS Infrastructure and Environment, was selected to coordinate the installation of the filter systems. Bottled water continued to be delivered to the residents until the filters were installed.

Filter installation began in July 2000 and was completed in September 2000. Each residence is tested on a semi-annual basis to verify that the carbon filter units are continuing to function properly. The last round of sampling was conducted during the week of June 18, 2001.

Montgomery County – ChemigraphicsSoutheast Region

The Chemigraphics Inc. site is located at Railroad Avenue and Mathers Road in Whitpain Township, Montgomery County, just outside of Ambler Borough. The 17-acre property has more than 50,000 square feet of building space. Chemigraphics fabricated stainless steel products before ceasing operations. When the facility closed, 50 to 100 drums of waste materials and numerous smaller containers were abandoned on the property. There has been a documented release of TCE, causing soil and groundwater contamination at the site. There have been 23 monitoring wells installed at the site along with five stream sampling locations.

Wastes have been shipped off site. Four quarters of sampling have been completed for the monitoring wells, surface water and sediments. A report is due by early fall 2001. Residential well sampling found no contaminants in any off-site residential wells. During the coming year, the monitoring wells will be sampled quarterly and the streams only once. Little change in groundwater status has been observed.

Delaware County – Conestoga FarmsSoutheast Region

The Conestoga Farms site is located in Concord Township, Delaware County where the groundwater beneath a 70-home development was contaminated. Approximately 37 homes had detectable levels of contamination in their drinking wells. This site is being addressed in conjunction with DEP's Storage Tank Program.

The primary contaminant was methyl tertiary butyl ether (MTBE) and was found in the drinking water aquifer of the development. Two homes also had levels of benzene and ethylbenzene above the MCLs in their drinking water, and one home had levels of trichloroethene above the MCL. The release is suspected to have been from underground storage tanks at a nearby gasoline service station.

DEP completed a grant agreement with the township in May 1999 for the construction of a waterline to the affected homes. The waterline construction was finished on April 29, 2000, while all hookups were completed on November 7, 2000.

Delaware County – East Tenth StreetSoutheast Region

The site is a 36-acre property located in Marcus Hook that was used from 1910 until 1977 by American Viscose and FMC Corp. for the manufacturing of rayon and cellophane. A former hazardous waste hauler apparently occupied the building in the mid-1980s. Many of the buildings have been demolished and construction debris, including asbestos and PCB oils, have been deposited on the ground.

During the rayon and cellophane manufacturing process, hazardous substances including metals and solvents were utilized. Wastes from the manufacturing process were deposited on site. During demolition activities, asbestos was buried in utility conduits and strewn about the surface. PCB oils from transformers allegedly were drained on the ground. Groundwater and surface water at the site have been found to contain metals, VOCs and PCBs. In May 2000, a building audit, conducted by a DEP contractor, revealed numerous drums of caustic, flammable and reactive substances. In addition, four tanks (one truck tank and three USTs) and many small containers were discovered in the same area.

DEP stabilized all known wastes, and off-site disposal was arranged. The work plan calls for soil borings, stream and sediment sampling, underground structure investigation, building investigations and groundwater well rehabilitation and sampling. On site work should begin at the end of the summer 2001.

Bucks County — Mount MilfordSoutheast Region

Mount Milford is residential property that is located at 1940 Upper Ridge Road in Milford Township, Bucks County. The property consisted of an abandoned residence and an office-type trailer located behind the residence in poor

condition. The site was referred to HSCA via a waste management complaint.

The trailer behind the abandoned residence contained approximately 100 pails of RCRA hazardous (ignitable) waste. There had been some spilling/leakage of the pails.

The Mount Milford site has been remediated. DEP removed and disposed of the pails of ignitable wastes and the contaminated trailer. Final IRSC costs will total approximately \$48,000.

Montgomery County – Yost RoadSoutheast Region

The Yost Road site is located along Yost Road, in Whitpain Township, Montgomery County. The site is comprised of several homes along Yost Road that have contaminated private water supply wells.

Currently, nine residential water supply wells have shown contamination in excess of the established drinking water MCLs. Two of these wells are contaminated with tetrachloroethylene (PCE) and the other seven are contaminated with trichloroethylene (TCE). No source for the contamination has been identified. DEP has and will continue to supply bottled water to affected residents until a waterline is complete. DEP has received copies of the fully signed grant agreement with the township for the construction of a waterline to the affected homes. Whitpain Township currently is proceeding with the waterline project.

Lackawanna County — Dunmore Borough HSCP Gas Site Northeast Region

The initial investigation was performed in Feb. 1997. The investigation was in response to a youth that was exposed to and treated for high levels of carbon monoxide (CO) in the Swinick Development. DEP's Hazardous Sites Cleanup Program contracted Tetra Tech EM Inc. (formerly PRC Environmental Services) to continue the weekly residential air-monitoring program and assist the U.S. EPA SATA contractor with the borehole monitoring. The data generated during the monitoring conducted by the U.S. EPA SATA and HSCP contractor was evaluated on a weekly

basis by representatives of the Regional ERT, HSCA and Special Projects Sections.

The residential homes were monitored for almost three years. The incident appeared to be only a one-time "spike" and not reproducible at hazardous levels. Ventilation systems were not required and no other CO incidents were reported.

Tetra Tech submitted the final site investigation report on June 8, 2000.

However, the CO incident did lead to the discovery of VOCs in the vicinity. DEP has determined that an additional focused study is necessary to ascertain the normal chlorinated and non-chlorinated volatile organic compounds to be found in typical abandoned mining areas. The focused background study planning currently is in progress. The scoping meeting with the HSCP contractor (Weston ARTC) has been completed, and a site visit to the former Dunmore Gas site study area with the Weston geologist has been performed.

Adams County – Gettysburg FoundrySouthcentral Region

On November 4, 1998, DEP entered into a consent order and agreement (COA) with C.M. Metals to clean up the Gettysburg Foundry, located in Cumberland Township. When C.M. Metals did not meet its obligations under the COA, DEP decided to implement the remaining portion of the interim response using HSCA funds, proceed with listing the site, and start the administrative procedures to implement the remedial response.

The SCRO's Hazardous Sites Cleanup Program has removed 4,886 tons of aluminum dross waste and 62 tons of bag house waste. The dross was disposed of as residual waste and the bag house waste as hazardous waste. In March 2000, DEP personnel offered to sample the wells of residents in Cumberland Township in the vicinity of the foundry. Twenty homes were sampled in May 2000. All homes were either upgradient or side gradient to the site. No site related contaminants were detected above health standards.

The statement of decision was signed on April 19, 2001. Under the selected remedy, DEP will excavate the two on-site waste pits and send the waste off site. Included in this excavation and disposal will be the impacted wetland sediments. Then, for worker and public safety, the ball mill building and a portion of the foundry building will be demolished. Finally, DEP will install point-source treatment systems on residential wells that are impacted by site-related contaminants in excess of Act 2 statewide health standards.

Bedford County – F.E. Cooper Southcentral Region

Approximately 10 acres of this 83-acre property, which is located in Broad Top Township, formerly was used as a wood preserving facility. As a result of creosote being released during the wood treatment operations, both the soil and groundwater are contaminated primarily with polynuclear aromatic hydrocarbons (PAHs), naphthalene and benzo(a)pyrene. In general, the contamination exists down-gradient of the former lumber treatment plant and between the former plant and the Raystown Branch of the Juniata River.

A remediation project to remove those contaminants from the soil using indirect thermal desorption was awarded in July 1998. The contract with that contractor was terminated due to nonperformance in September 2000. At the time, nearly 50 percent of the work was complete. DEP solicited bids in May 2001 to complete the work using the same technology. This contract was awarded to Environmental Chemical Corp. (ECC) from Burlingame, Calif., in July 2001. Their bid amount was \$5,430,741.70.

Fulton County — Delancy Road Drum Removal Southcentral Region

The Delancy site consists of two locations along Delancy Road, in Thompson Township. Each location had two discarded 55-gallon drums. One site is located 0.25 miles from the intersection of Timber Ridge Road and Delancy Road, and the other site is located 0.25 miles further down Delancy Road. The drums were reported to the southcentral region emergency response team in February 2000.

Sampling results from DEP's Bureau of Laboratories showed the presence of two compounds, toluene at a concentration of 407,000 parts per million (ppm) and acetone at a concentration of 218,000 ppm. These constituents, the reported chemical concentrations and flammable properties are characteristic of paint wastes. This also is consistent with labeling information on the drums. It appears that each of the four drums had similar contents. Each drum was nearly full of these contents.

The southcentral region's Environmental Cleanup Program, Hazardous Sites Cleanup Section was tasked with retrieval and disposal responsibilities. The drum removal took place on August 8, 2000 and was funded by a regional contract. The cost of this action was \$2,245. The drums were taken to a secure location, sampled for disposal and transported to a treatment/disposal facility.

Mifflin County - Naginey Quarry Southcentral Region

Independent Trading Corp. (ITC) leased the property from Joe Drentzman and Sons Inc. during the 1970s. ITC used the Naginey Quarry site, located in Armagh Township, as a battery breaking facility from 1978 to 1980. The company stockpiled casings in the plant yard and in the adjoining part of the site that was owned by Charles Naginey. This created numerous large stockpiles of broken battery casings. Approximately 170 drums of foundry sand were located within the masonry block building on the site.

Approximately 1,075 cubic yards of soil/material was scraped up. This material then was stabilized using the West-Phix phosphate process on site. For this process, 68.5 tons of mono-ammonium phosphate were used. After stabilization, 1,715 tons of stabilized material were disposed of off site. Krentzman & Sons began excavating lead contaminated soils in April 2000 and completed excavating in May. The soils were disposed.

The Naginey portion of the site was remediated by DEP as a prompt interim response. A contractor-scoping meeting was held on May 18, 2000. Mobilization to the site occurred in July 2000. Residual contaminated soils were removed from the former battery disposal area and adjacent areas. The fieldwork was completed by August 17, 2000.

Centre County — State College Groundwater Investigation

Northcentral Region

Area-wide volatile organic contamination, primarily chlorinated solvents, in the groundwater has been known to exist under State College since the early 1980s. The aquifer in question is a karst aquifer making the understanding of the groundwater flow system of critical importance. Recently, several water supply wells drilled in the area have shown groundwater contamination. Since there have been no potential responsible parties defined and State College is rapidly developing, DEP decided to undertake the investigation.

The site consists of a portion of the Borough of State College and the adjacent portion of College Township that has PCE-contaminated groundwater. Sampling results from numerous sources in and around State College show PCE and its degradation products.

DEP has retained the services of a GTAC to install groundwater bedrock monitoring wells to evaluate the occurrence of contamination in the area of interest. It is anticipated that approximately 10 wells will be installed in the summer of 2001 on the borough's property and right of ways, and in College Township. The wells will be constructed, developed, surveyed and sampled quarterly for one year.

Columbia County — Bloomsburg Chemical Odor Northcentral Region

On March 2001, DEP received a phone call from a Bloomsburg homeowner indicating that unusual odors were being noticed in the home, especially in the basement. DEP determined that strong vapors were emanating from a crack in a foundation wall. PID readings from the crack registered approximately 200 to 300 ppm.

An exploratory trench outside the home foundation confirmed historical reports that the home is built on rock slag and cinder material. Perforated piping was installed prior to backfilling

the trench in an effort to vent any potential trapped vapors to the atmosphere.

PID readings in various sanitary sewer manholes indicate that at least one contributing source of the contamination could be from a local fabric manufacturing industry. The sporadic occurrences of the odors seem to relate more to an occasional discharge to the sewer system rather than being caused by a widespread contaminated media problem.

Five groundwater-monitoring wells have been constructed to evaluate the existence of any groundwater contamination problems. DEP also is working to install a vapor removal system around the affected residence. Additional air and wastewater sampling is being scheduled to positively identify the source and allow for the planning of appropriate corrective actions.

Beaver County — Darnley Site Southwest Region

The site consists of approximately six acres, located in a mixed rural and residential area in Greene Township. It was used as a storage, transfer and disposal facility for hazardous waste, waste oil and other wastes. Leaking drums and tanks were stored on the site, causing contamination of site soils, surface water, sediments and potentially contaminating groundwater. In the summer of 1996, DEP removed more than 1,200 drums, tanks and containers of hazardous wastes and visibly contaminated soil.

DEP remediated the buried contamination in April, May and June 2001. Contaminated site media was excavated and disposed of off site. Siphon dams, installed in the stream during the emergency response, also were removed along with stream sediments. The final cost for the interim response was approximately \$557,000.

Cost recovery efforts will be delayed because of an on-going criminal action. The owner-operator has pleaded guilty to five of the seven charges filed against him and has agreed to assist the Attorney General's (AG) office in their further investigation.

Allegheny County — Industrial Recycling Services Site Southwest Region

The Industrial Recycling Services site is located on a vacant lot in Stowe Township and consists of an abandoned trailer containing numerous drums of liquid and solid waste. Industrial Recycling Services placed the drums in the trailer and abandoned the trailer when they went out of business in April 1998. Industrial Recycling Services was a metal recycling company that leased a building across the street from the abandoned trailer.

DEP began a prompt interim response on September 5, 2000. The waste contained in the trailer was characterized, removed and disposed. The response action was completed on October 26, 2000. A total of 38 drums of hazardous waste were removed from the site for disposal. The response action cost approximately \$57,000.

Industrial Recycling Services Inc. filed for bankruptcy in 1998 and the corporation has been dissolved. No assets remain in the estate. No other responsible parties could be found for the site.

Fayette County — Tunnel Road Drum Site

Southwest Region

The Tunnel Road Drum site, located in Perry Township, consists of nine abandoned drums containing creosote-like sludge waste. The drums had been tipped over and some of the contents were spilled along the edge of Tunnel Road. Stained soil was visible surrounding the drums. The drums and surrounding soil were found to contain naphthalene, which is a hazardous substance. An unknown party abandoned the drums. The current site owner, Perryopolis Borough, was not responsible for abandoning the waste. Therefore, cost recovery will not be pursued against the borough. No other responsible parties could be found for this site.

In December 2000, DEP conducted a response action to remove the drums and contaminated soil from the site and arrange for disposal at a permitted facility. The response action cost approximately \$2,900.

Crawford County — Conneaut Creek Drum Site

Northwest Region

The Conneaut Creek Drum site consists of a residential house owned by Shawn E. Daly and Mark E. Renniger in Conneautville. Specifically, the site is oriented in the backyard of the property and covers an area of about 60 square feet. The site is on the right downstream bank of the active stream channel of Conneaut Creek.

Two barrels and their contents were partially exposed on the stream bank. The material had a thick tar-like consistency and spilled from the barrels onto the stream bank and into Conneaut Creek. The material was characterized as paint waste with levels of lead exceeding statewide health standards. A high potential for direct human contact with the hazardous material existed.

DEP conducted an interim response, which resulted in an excavation. Three 55-gallon containers of waste and contaminated soil were removed. The stream bank was stabilized by backfilling the excavation and planting local grasses and "live stakes." The source of the waste material is unknown. Based on the condition of the barrels, the disposal occurred prior to any resident occupancy. Cost recovery for this project is not being pursued.

Erie County – Filmore SiteNorthwest Region

The Filmore site, approximately 20 acres in area and owned by Benjamin Kimmel, Millcreek Township, is currently an inactive illegal landfill with auto parts and other debris, foundry wastes and drums containing paint wastes and other unknown wastes. The western portion of the site was the former location of a metal smelter. LOC Inc., current owner of the western portion, manufactures roof trusses.

Lead levels in the site surface soils are well above statewide health standards. Drum wastes were found to contain volatile organic compounds and some heavy metal contaminants. Polychlorinated biphenyls and polynuclear aromatic hydrocarbons also were found in site soils. A lead level over statewide health standards was found in one offsite business well.

DEP has settled with all responsible parties. Remediation is scheduled to be completed during the summer 2001. Cleanup efforts include the excavation of contaminated foundry sands, soils and sediments; consolidation of the excavated materials into a portion of the former Kimmel property; soil capping of the consolidated materials; and the construction of a packed gravel cap on the LOC Inc. property. The estimated cost for the work is \$1,914,428.

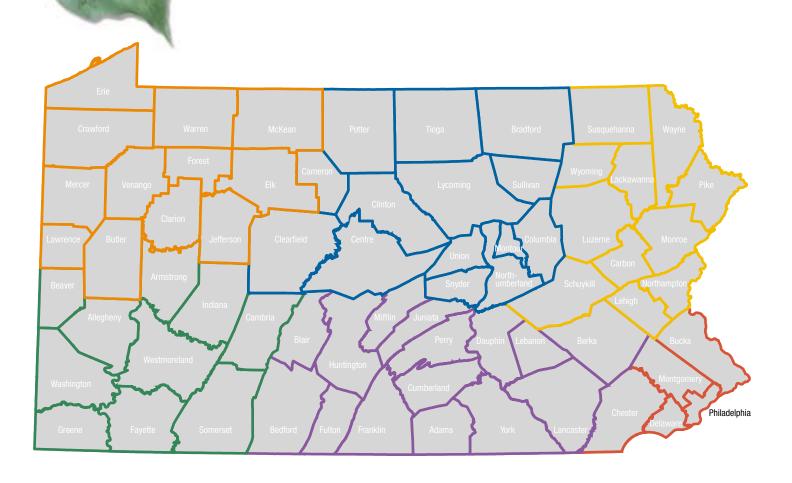
Mercer County – Sandy Lake Asbestos Site Northwest Region

The site is a former manufacturing facility for various products that generated waste containing asbestos. The facility is located on a 31.75-acre parcel of a 380-acre property in Stoneboro Borough. That 380-acre property contains a 150-acre glacial lake and surrounding residential recreation area. The facility ceased operations prior to 1923. The remnants of the concrete manufacturing buildings and an approximately 0.367-acre waste pile, containing approximately 5,000 tons of waste, remain at the site.

Remediation of the site (waste stabilization and off-site disposal) was completed January 26, 2001. Final soil cover was revegetated on May 9, 2001. To date, this revegetation effort appears to be successful. The statement of decision was signed for the site on May 15, 2001. The previous agreement, that resolved the liability of Lakeside Park Co. (site owner) by selling the 380-acre property to a non-profit public entity, was not concluded.

Pennsylvania Land Recycling Program

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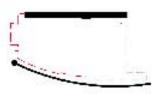
Voice: (610) 832-5950 Fax: (610) 832-6143

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PEDESTRIAN AMENITIES



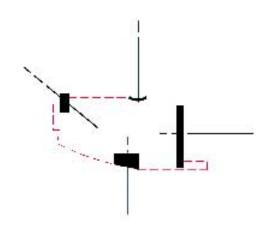
RELATIONSHIP TO NATURA, FEATURES

This diagram was used during early design stages of the PNC Firstside Center in Pittsburgh. DEP worked with PNC to address the company's concerns for the environment and the surrounding community.

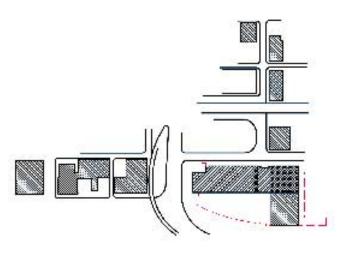


Showcase Site, Southwest Region, 'America's Workplace of the Future Built on a Brownfield Site.'





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BILEX	Berizerie, Toluerie, Ethyl Berizerie, Xylerie — Components of gasoline
DDE	Dichlorodiphenyldichloroethylene — commonly used chemical in pesticide
DDT	Dichlorodiphenyltrichloroethane — commonly used chemical in pesticide
MTBE	Methyl Tert-Butyl Ether — added to unleaded gasoline to replace lead
PAH	Polyaromatic Hydrocarbons — another class of hydrocarbons (e.g., coal tar)
PCB	Polychlorinated Biphenyl — transformer oil
PCE	Tetrachloroethylene (Also referred to as Perchloroethylene) — dry cleaning fluid
PHC	Petroleum Hydrocarbons — distillates of crude oil
PID	Photoionization Detector — sampling instrument
TCE	Trichloroethylene — chlorinated solvent
трн	Total Petroleum Hydrocarbons — petroleum products usually found at tank sites
TRPH	Total Recoverable Petroleum Hydrocarbons — petroleum products usually found at tank sites
voc	Volatile Organic Compound — usually quick-evaporating liquid

Mark Schweiker, Governor

David E. Hess, Secretary



Department of Environmental Protection

Environmental information is available electronically via the Internet. Visit DEP through the PA PowerPort at www.state.pa.us or directly at www.dep.state.pa.us.



Pennsylvania Land Recycling Program

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www.dep.state.pa.us (directLINK "Land Recycling")



A web space dedicated to helping you learn how to protect and improve the environment. The site features the largest collection of environmental videos available on the Internet and is produced by the nonprofit Environmental Fund for Pennsylvania, with financial support from the Pennsylvania Department of Environmental Protection, 877-PA-GREEN.

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