Recycling America's Gas Stations

The Value and Promise of Revitalizing Petroleum Contaminated Properties

Report by the Northeast-Midwest Institute and the
National Association of Local Government Environmental Professionals 2002

ABOUT THE NORTHEAST-MIDWEST INSTITUTE

The Northeast-Midwest Institute is a Washington-based, private, non-profit, and non-partisan research organization dedicated to economic vitality, environmental quality, and regional equity for Northeast and Midwest states. Formed in the mid-1970's, it fulfills its mission by conducting research and analysis, developing and advancing innovative policy, providing evaluation of key federal programs, disseminating information, and highlighting sound economic and environmental technologies and practices. The Institute is unique among policy centers because of its ties to Congress through the Northeast-Midwest Congressional and Senate Coalitions. Co-chaired by Senators Susan Collins (R-ME) and Jack Reed (D-RI), and Representatives Marty Meehan (D-MA) and Jack Quinn (R-NY), the bipartisan coalitions advance federal policies that enhance the region's economy and environment.

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Founded in 1993 by a group of local officials, the National Association of Local Government Environmental Professionals (NALGEP) is a not-for-profit national organization representing local government professionals responsible for environmental compliance and the development and implementation of local environmental policy. NALGEP's membership includes more than 150 local government entities located throughout the United States, ranging in size from the largest cities to much smaller communities.

NALGEP brings together local environmental officials to network and share information on innovative environmental practices, conduct environmental policy projects, promote environmental training and education, and communicate the view of local environmental officials on national environmental issues. NALGEP has created an effective forum for local officials to work together to develop new approaches to issues and communicate the needs and views of local governments to key federal policymakers.

NALGEP has convened work groups of local government officials to provide input to federal officials on brownfields redevelopment, smart growth, and air and water quality issues. NALGEP has published *Building a Brownfields Partnership from the Ground Up, Profiles of Business Leadership on Smart Growth, Profiles of Local Clean Air Innovation,* and *HUD CDBG and Brownfields: A Building Block for Community Development*.

NALGEP is managed by Spiegel & McDiarmid, a national law firm based in Washington, D.C. NALGEP's staff include Kenneth Brown (Executive Director), Matt Ward (Environmental Attorney), David Dickson (Project Manager), and Bridget Thorsen (Project Assistant).

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ACKNOWLEDGEMENTS

Many thanks are due to a number of folks who have made USTfields revitalization, and thus this report, possible.

This report was made possible by the great ideas and input of the "USTfields Advisory Council" listed on the next page, a group of state and local USTfields pilot pioneers convened for this project. We are grateful for the leadership of the U.S. Environmental Protection Agency on USTfields, and their support of this project. We thank EPA Assistant Administrator Marianne Horinko for her vision on turning contamination into revitalization, and Office of Underground Storage Tanks Director Cliff Rothenstein for launching the USTFields Pilot initiative, guiding us and providing the funding for this report. Special thanks are due to Steven McNeely, the energetic and enlightened EPA official who has led and pushed the USTfields initiative from the beginning (and probably won't stop until every last USTfield is gone). We also thank Elizabeth Harris, Barbara Howenstine, and Shushona Hyson at the Office of Underground Storage Tanks, and EPA regional officials, for their active roles in creating, reviewing, and guiding this report.

The authors give great thanks to our colleagues who have put countless hours and creative energy into this report. We thank Dick Munson, Executive Director of the Northeast-Midwest Institute, and the Institute's Rachel Deane, especially for her diligent efforts to create the state USTfield matrices. We thank Ken Brown, NALGEP's Executive Director, for his guidance and NALGEP's Bridget Thorsen and David Dickson for major work on this project. They should all be proud of their contributions. Thanks too to Jessica White at NALGEP for formatting many versions of this document into shape. NALGEP is also grateful to its former project manager Andy Seth, who played a key role in the early stages of this project and report.

Special thanks to Johnnie Bachusky for providing many magnificent photographs. Last but not least, we commend the report's designers, Patrice Gallagher and Theresa McKee, for making us look so good.

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EXECUTIVE SUMMARY

Across America, local communities are grappling with the challenge of polluted, abandoned gas stations and other petroleum contaminated sites. As many as 200,000 sites are impacted by petroleum leaking from underground storage tanks or "USTs," and these properties are currently a threat to public health and a blight on neighborhoods. However, these sites also offer opportunities for economic redevelopment and community revitalization, much like the broader opportunity of "brownfields." Meeting the challenge of "USTfields" revitalization will require a partnership among states, localities, U.S. EPA and other federal agencies, the private sector and other leaders to put new resources, tools, and policies into action.

In September, 2001, the U.S. Environmental Protection Agency (EPA) launched its USTfields pilot initiative, to address "abandoned or idle property where redevelopment is hindered by petroleum contamination from abandoned, federally regulated underground storage tanks." USTfield sites — such as former gas stations, auto body shops, industrial facilities, even commercial and residential properties — must overcome significant barriers to reuse, notably, fear of liability, lengthy cost recovery procedures, and up-front cleanup expenses. Until recently, UST programs have focused primarily on the cleanup of environmental problems, but now a new approach is emerging that considers USTfield sites more from a real estate vantage point — as opportunities for economic and community revitalization, but with an environmental twist.

The closed corner gas station remains a problem for communities.

The closed corner gas station remains a problem for communities. Localities of all size and in all places face challenges with their USTfields, and the cleanup and revitalization of these sites — especially abandoned gas stations — is a top priority for many local officials. From poor urban neighborhoods in places like Chicago and Salt Lake City, to rural towns in South Carolina and New Mexico, abandoned gas stations often blight a community and lead to further distress and disinvestment. USTfield sites threaten public health and drinking water supplies, attract graffiti, weeds, vandals, or even neighborhood crime, thwart economic renewal, and create community eyesores on prominent corner lots. Moreover, disinvestment in petroleum brownfields in established communities can push sprawling development into valued open spaces and farmland.

USTfields comprise a significant subset of the known brownfields universe; nearly 200,000 out of the estimated 500,000 brownfield sites may contain petroleum tanks. In some locations, this percentage may be even higher. For example, in New Hampshire, officials estimate that 70 percent of the state's brownfields have a petroleum component. Many of these sites are gas stations that have shut down because they could not comply with 1998 federal UST upgrade requirements, often because their owners could not afford to investigate and clean up the contamination present. However, petroleum contamination sites are not limited to gas stations, which compounds the challenge of carrying out a successful USTfield strategy.

In spite of the barriers, states and communities are starting to take on the USTfield revitalization challenge — and starting to see success. Affordable housing in Chicago, a retail telecommunications business in Lockport, Illinois, a new community fire station in Trenton, New Jersey, waterfront condominiums on Siletz Bay in Oregon, a vibrant mixed-use development at the Housewives Market Block in Oregon, renewal of the downtown historic district in Anderson, South Carolina — these are the USTfields opportunities emerging from the abandoned gas stations and polluted petroleum sites of America's communities.

A critical finding of this report is that tackling petroleum site situations from the vantage point of redevelopment and reuse — rather than only from the perspective of contamination and cleanup — is a key to USTfields success. In this regard, USTfields share many characteristics with traditional brownfields, which suggests that there may be common solutions to dealing with these sites.

Tackling petroleum sites from the vantage point of redevelopment and reuse — rather than only from the perspective of contamination and cleanup — is a key to USTfields success.

Now is an excellent time to take advantage of emerging new opportunities for USTfields revitalization. There is a fresh awareness of the connection between environmental innovation and economic prosperity. At the beginning of 2002, President Bush signed the Brownfields Revitalization Act, which will provide up to $50 million a year in grants and other resources for the cleanup of abandoned gas stations and other petroleum contaminated sites. Moreover, the U.S. EPA has just launched its "USTfields Revitalization Initiative" that will provide funding to 50 state-local pilot partnerships designed to promote innovative approaches to the recycling of America's gas stations and other petroleum contaminated sites. And, more and more examples of successful USTfields redevelopment are emerging from local communities around the nation.

The EPA Office of Solid Waste and Emergency Response has put a cooperative agreement in place with the Northeast-Midwest Institute (NEMW) and the National Association of Local Government Environmental Professionals (NALGEP) to coordinate and support the 50 USTfield pilot communities and to recommend ways to promote the USTfields revitalization mission. This report, **Recycling America's Gas Stations**, is the culmination of the first phase of the NEMW-NALGEP project. The report provides background on the challenges of UST contamination across the nation, profiles 20 examples of USTfield revitalization efforts in states and localities, puts forth 23 key findings on the USTfields issue, and promotes 10 action items that could strengthen the national USTfields initiative. This executive summary lists these examples, findings, and recommendations.

We hope that this report can prime the pump for more USTfields innovation in communities across America. We encourage you to use the profiles, findings and recommendations in this report to fuel your own efforts to meet the USTfields challenge.

FINDINGS: WHAT DRIVES SUCCESS IN USTFIELDS REVITALIZATION

Based on innovative efforts to revitalize USTfields across America, Section III of this report identifies a number of findings on what can drive success. These findings address issues related to resources, policies, regulations, government programs, and partnerships that will affect our nation's ability to revitalize these USTfields sites. The report findings also acknowledge that there are critical factors that distinguish the UST challenge from traditional brownfields redevelopment, including statutory constraints such as the petroleum exclusion from the CERCLA Superfund law, limitations on funding sources, regulatory and procedural issues, and physical considerations at tank sites.

One theme frames all of these findings — that USTfields should be viewed as an opportunity to unlock local economic potential with an environmental key. Turning USTfields into productive places again means more than just closing leaking tanks and cleaning up soil. If contaminated petroleum sites are viewed only as pollution problems, disconnected from community revitalization goals and economic development strategies, then USTfield reuse efforts will struggle and cleanup efforts will slow. If, however, localities and their partners view USTfield projects as real estate deals that further community development goals, then the environmental contamination can often be resolved more quickly, in a manner that creates value, attracts investment, and gathers public support. This perspective also reflects the emerging agenda of U.S. EPA's Office of Solid Waste and Emergency Response, whose chief Marianne Horinko seeks to integrate community revitalization and land re-use approaches into EDA's waste cleanup efforts.

In Section III of this report, we provide 23 findings, grouped in six broad categories:

ESTABLISHING STRONG STATE USTFIELD PROGRAMS

State governments are well positioned to move the UST challenge beyond tank closure to site revitalization with new resources and liability clarification tools:

FINDING 1: States are in the best position to develop the climate that fosters USTfield revitalization, leverages resources, and streamlines regulatory efforts associated with contaminated tank sites.

FINDING 2: States should continue to move beyond tank closure and cleanup to site revitalization. To this end, states could help fill key USTfield cleanup and redevelopment financing gaps by channeling some of the $1.91 billion currently available in state cleanup funds into activities that meet the broader USTfield reuse mission.

FINDING 3: States could help provide certainty and finality on UST liability for localities and prospective redevelopers, by integrating USTfield regulatory tools with brownfield voluntary cleanup programs.

FINDING 4: States should promote collaboration on USTfield revitalization among key agencies handling environmental, economic development, growth planning, housing, infrastructure, and other relevant issues.

STRENGTHENING LOCAL USTFIELD CAPACITY

USTfield success will occur on the ground under the leadership of local governments, particularly when localities integrate USTfields into broader community development goals. But, localities will need resources, regulatory assistance, and new partnerships to address abandoned USTfield sites:

FINDING 5: Localities need sufficient resources to build program capacity and to leverage site-specific USTfield projects.

FINDING 6: Localities need assistance in addressing orphaned USTfield sites with unknown, unreachable, or financially incapable owners.

FINDING 7: Localities will enhance their potential for successful USTfield reuse if they integrate USTfields into broader community development goals.

FINDING 8: Localities should be thinking now about how to sustain and institutionalize USTfield and brownfields revitalization initiatives beyond the EPA pilot stage.

FINDING 9: New partnerships with regional planning and economic development organizations can help small and rural communities address USTfield barriers.

PROVIDING RESOURCES AND INCENTIVES FOR USTFIELD REUSE

The USTfields challenge will clearly require significant resources and incentives from a variety of federal, state, local and private sector resources. New brownfields legislation and an emerging EPA goal of community revitalization provide a potential opportunity to meet this need:

FINDING 10: USTfield revitalization requires localities to leverage assessment, cleanup, and redevelopment resources from various federal, state, local and/or private sector sources.

FINDING 11: State programs can provide a variety of direct and indirect funding instruments for USTfields revitalization.

FINDING 12: EPA can strengthen USTfield reuse approaches by promoting the leveraging of other federal agency resources, but USTfield advocates must be proactive about pursuing these resources.

FINDING 13: State governments need to target their own economic and community development programs and broaden their eligibility criteria to support USTfield projects.

FINDING 14: The federal government needs to increase funding for state and local USTfields efforts through full funding of the Brownfields Revitalization Act, increased use of the federal LUST Trust Fund, and direct USTfield grants to a variety of local, state, and regional entities.

OVERCOMING REGULATORY AND LEGAL CHALLENGES

Localities and states face regulatory and legal challenges, because the regulatory structure that has developed over time was not designed to foster economic reuse and revitalization of these contaminated petroleum sites. Government policies can help overcome these barriers — particularly cost recovery issues — to enhance opportunities for productive UST site reuse:

The federal government needs to increase funding for state and local USTfields efforts.

FINDING 15: Localities have identified the need for flexibility under cost recovery requirements to put USTfields sites on a revitalization track.

FINDING 16: Local governments are concerned that they could face legal liability if they acquire sites to promote USTfields revitalization.

FINDING 17: MTBE contamination is a significant issue in many areas, and localities and states need support in addressing MTBE as part of an USTfield revitalization strategy.

ENHANCING INTERGOVERNMENTAL COOPERATION

The UST challenge will require partnerships at every level of government to build the program infrastructure of support necessary to advance local USTfields efforts:

FINDING 18: States, localities, and EPA can build a foundation for future USTfield revitalization efforts by measuring, tracking, and promoting the results of USTfield efforts.

FINDING 19: EPA Regional offices must play a critical role in fostering USTfields initiatives, providing technical assistance and information to state and local efforts, connecting USTs with broader brownfields resources, and encouraging the replication of successful approaches.

REACHING OUT TO THE PRIVATE SECTOR AND COMMUNITY

USTfield success will also require stronger partnerships among government, community groups, and a range of private players including developers, financiers, and oil companies:

FINDING 20: The potential for USTfield reuse will be strengthened if the public sector forms partnerships with, and provides outreach to, potential redevelopers and reusers of sites.

FINDING 21: More USTfield sites will be cleaned and reused if the public sector forms partnerships with, and provides outreach to, financiers and insurers of USTfields projects.

FINDING 22: Partnerships with major oil companies and petroleum marketers can grease the skids for site revitalization.

FINDING 23: Localities can enhance their overall USTfield reuse strategies by promoting proactive community involvement processes for USTfield projects.

RECOMMENDATIONS ON STRENGTHENING THE NATIONAL USTFIELDS INITIATIVE

Prospects are excellent for USTfields revitalization across the nation. At this point on the road to revitalization, USTfield leaders should fill 'er up with new resources, tune up the program with improved regulatory approaches, rev up stronger public-private partnerships, and keep on rolling. This final section of the report looks over the horizon, suggesting action items that could enhance the future of the national USTfields initiative. Based on the lessons learned from the initial USTfields pilots and ongoing efforts across America, the Northeast-Midwest Institute and NALGEP recommend the following priority action items:

ACTION ITEM RECOMMENDATIONS

USTfield Funding

ACTION 1: EPA should provide direct USTfield Revitalization Grants to a variety of local government, state, regional, and tribal entities.

ACTION 2: States should redirect resources from the $1.91 billion in State funds now available for UST activities, as well as traditional economic development tools and resources, toward an UST reuse and redevelopment mission.

ACTION 3: EPA should clarify and publicize that the federal Brownfields Tax Incentive is available for use at USTfields.

Technical Assistance

ACTION 4: EPA should establish a Regional USTfields Coordinator and a Regional Reuse Team in all ten EPA regional offices, to coordinate USTfield pilots, provide technical assistance, and promote collaboration.

ACTION 5: EPA should tailor the use of existing technical assistance tools to the USTfields challenge, including the Technical Assistance for Brownfields program, and a new edition of the EPA's Technology Innovation Office's "Roadmap for Brownfields Technologies" manual.

Regulatory Incentives

ACTION 6: EPA should issue guidance enhancing flexibility in cost recovery requirements for USTfields revitalization.

ACTION 7: EPA should issue guidance clarifying the application of Brownfields Revitalization Act provisions regarding liability and state cleanup authority to USTfield sites.

ACTION 8: States should consider how the integration of UST, brownfields, and Voluntary Cleanup Program regulatory processes could streamline and promote USTfield revitalization.

Intergovernmental Partnerships

ACTION 9: EPA should allow states to direct Brownfields Revitalization Act funding for State VCPs toward USTfield program development.

ACTION 10: EPA should partner with states and localities to ensure that USTfield revitalization benefits are measured, tracked, and promoted.

PROFILES OF USTFIELDS REVITALIZATION

Innovative states and local communities are turning contaminated USTfields into new opportunities for economic growth and healthy neighborhoods. In each of the 10 EPA USTfields pilots and many other communities, examples of UST revitalization are emerging that can serve as models for others and suggest approaches for USTfield reuse. Section II and Section III of this report provide 13 in depth profiles and 7 shorter case study examples of USTfields revitalization in action. These profiles and case studies are listed here:

USTFIELD PROFILES

New Hampshire USTfield Economics — Leveraging and Creative Finance

New Jersey — An Intergovernmental Partnership Fosters USTfields Reuse

Delaware — First State Takes the Lead to Rehabilitate Abandoned USTs

South Carolina — A "SUPERB" Focus on Pre-1974 Tanks

New Mexico — USTfields as Foundation for Landmark State/Tribal Cooperative Effort

Gila River Indian Community — Tribe Takes Stock of USTfields

Chicago and Illinois — The Power of Partnerships

Kansas City, Missouri — City Infrastructure Financing and State UST Insurance Fund Provide Cleanup Catalyst

Utah — State Environment and City Redevelopment Agencies Partner for Economic Results

Oakland, California — New Tools Emerge from Partnerships

Oregon — DEQ Puts a Number of Tools in the USTfield Toolbox

Rochester, New York — UST-Ridden Car Dealership Becomes Townhouse Development and 24-Hour Art Deco Coffeehouse

South Dakota — State Covers All the Ground in UST Cleanup

CASE STUDY EXAMPLES

New Hampshire Combines Tools for USTfields Success

Lockport, Illinois — Making the Brownfields/USTfields Connection

Tribal USTfields Issues in EPA Region IX

Rural Illinois — Capacity Issues Affecting the Brownfields/UST Connection

Insurance and Incentives — Lessons from New Hampshire

Illinois Cost Recovery — A Practical Approach that Recognizes the Realities of Reuse

Anderson — UST Cleanup Key to Downtown Revival

GAS STATIONS, STORAGE FACILITIES, & OTHER OILY MESSES

PART I

WHY AN USTFIELDS INITIATIVE?

The problem of abandoned gas stations and other petroleum contaminated properties impacts most communities in America — not surprising, given an estimated 200,000 USTfield sites nationwide. And while UST sites share many of the characteristics of more traditional brownfields, USTfields are unique and require new approaches. Due to the size, ownership, and nature of USTfield sites, they can be comparatively more difficult to address than conventional brownfields. Until recently, communities have faced significant barriers to turning USTfields into productive places, because federal law and resources for brownfields could not be directed to these petroleum contaminated sites. As Mayor Preston Daniels of Des Moines, Iowa testified to the Senate Environment and Public Works Committee on behalf of NALGEP in June 2000: "Local governments need the flexibility to direct their federal brownfields tools and resources to their priority brownfields projects, including those that are blighted by petroleum." Some of the critical factors that have inhibited the redevelopment of petroleum contaminated sites thus far include the following:

Due to the Superfund petroleum exclusion, sites with great potential for revitalization have been excluded from the redevelopment process.

STATUTORY CONSTRAINTS. These sites, often characterized by obsolete, leaking, or abandoned storage tanks, have not been addressed to date under EPA's brownfield program, because of the petroleum exclusion in the governing law, the Comprehensive Environmental Response, Compensation and Liability Act, better known as CERCLA or Superfund. This CERCLA provision has barred the use of federal brownfields funding on sites where petroleum is the only contaminant. In many communities, this has meant that sites with great potential for revitalization have been excluded from the redevelopment process.

LIMITATIONS OF FUNDING SOURCES. Communities that have used the federal Leaking Underground Storage Tank (LUST) trust fund to help with a response activity at a site are not able to tap into other EPA sources for assistance with other elements of reuse activity at that site, due to restrictions in federal law and regulations. The new brownfield law, discussed below, may also limit the potential to use brownfield grants or loans in combination with LUST resources.

REGULATORY AND PROCEDURAL ISSUES. The federal and state regulatory structure has been focused on federal requirements that underground tanks either meet environmental standards or be appropriately closed by 1998. States were given primary responsibility for implementing these requirements and others through UST enabling legislation. The prominent role of the states is a great advantage to the USTfield effort, and lays the foundation to move beyond mere tank closure to tank site redevelopment. However, variations stemming from state policies — ranging from perfor-

mance and enforcement requirements to the scope of sites covered — can complicate efforts to articulate and translate lessons and recommendations from one community to another. For example, states have established their own cleanup funds to complement other sources, but coverage and deductibles differ, often considerably. Site eligibility stipulations and access procedures are not the same across state lines, and in fact, not all state funds cover abandoned tanks. Some of these funds are scheduled to expire in a few years, or be transformed into insurance-type programs. Some states provide assistance beyond cleanup to redevelopment, but many states end their role when the environmental threat from leaking tanks is addressed.

Most state funds follow the federal LUST requirements, and typically can only be used at federally regulated LUST sites (tanks in operation after 1974 and registered after a 1986 tank registration deadline). This can eliminate sites with great merit (from a redevelopment standpoint) from the help they need on the cleanup side. Also, states vary widely in how they interpret federal requirements that cleanup costs be recovered from responsible parties before public funding can be applied — so-called "cost recovery" requirements. These variations can intimidate prospective new users and limit their ability to tap into public program funding intended for tank site situations. And on the economic development financing front, state differences in matters ranging from program eligibility criteria to addressing back taxes affect the impact of these other regulatory issues.

All of this affects the viability of efforts to revitalize and reuse sites contaminated with petroleum, place by place.

PHYSICAL CONSIDERATIONS. UST sites can differ from typical industrial brownfields because of their location. Many are abandoned gas stations, and often they adjoin residential areas or occupy prominent corners on major thoroughfares. The "stigma on main street" increases the challenges of reuse. In addition, many USTs are located on small lots, making them difficult to sell and reuse in the face of big box development and sprawling town perimeters.

Taken together, these issues that distinguish USTs from more traditional brownfield challenges have influenced the approach that the federal government, states and localities have taken on the petroleum brownfield challenge thus far. Simply put, UST work until now has been focused on the cleanup of too limited a number of petroleum contaminated sites. Even the number of potential UST sites is unclear. While it is fairly clear that at least 200,000 of the known 500,000 brownfields in America suffer from petroleum contamination, it is unknown how large the total USTfield challenge will be. There are more than 2 million federally regulated underground storage tanks, and some 1.3 million tanks have been found substandard under EPA regulations and been closed. But it is not known whether the sites at which these tanks were present are now back in productive reuse — or blighted and abandoned. And, this universe of tanks includes only those regulated by federal statute and regulation, and not those tanks — numbering perhaps in the hundreds of thousands — that were in operation in the long distant past and which are not covered by EPA requirements. Nor does the EPA UST program address above-ground petroleum storage tanks, home heating oil tanks, or farm-related tanks, although all of these tanks could lead to a "petroleum brownfield." These uncertainties all point to one of the

key conclusions of this report — that the USTfield challenge requires the reuse of a broader number of abandoned sites than those that have been targeted by the limited federal and state tank closure programs thus far, if these properties are going to be part of the revitalization of more American communities. And, with a new Brownfields Revitalization Act now available to address petroleum contaminated brownfields, and a new perspective at U.S. EPA on the revitalization of these sites, there is now an excellent opportunity to address the real USTfield needs of American communities.

It is against this backdrop that EPA launched its USTfields initiative — a "pilot" in the truest sense of the word. The ten pilots represent the beginning for EPA as well as the grant recipients. This initiative is meant to start to build the infrastructure of federal policies and regional support for state and local partnerships needed to bring revitalization objectives into the tank cleanup process.

EPA still needs to develop its own functional programmatic structure to best deliver its new program and ensure the effective coordination among all prospective USTfield partners in the cleanup and reuse arena. The agency is just beginning to identify viable strategies to encourage and facilitate the types of information and technical assistance exchange that will make the USTfields concept more readily acceptable to a wider range of partners. Accordingly, a key challenge that EPA must address at this nascent stage in the initiative is helping the EPA regional offices support USTfield-type programs in every state, not just the initial ten pilots. This will set the stage for more areas to realize the potential of an USTfields revitalization approach. An important part of this task is identifying new resources for this purpose, and connecting them to states and communities.

A significant opportunity for the revitalization of more USTfields has just emerged with the passage of the Brownfields Revitalization Act by the U.S. Congress. This new law authorizes up to $50 million a year for grants and other financial assistance for the cleanup and revitalization of a broader range of petroleum brownfields, and may provide new approaches for resolving liability concerns and other barriers to USTfields reuse. The brownfields act provides EPA with a tool that can enhance its efforts to move forward on a national USTFields revitalization initiative; it also should encourage new partnerships between local governments, states, the private sector, and other critical stakeholders on this critical environmental and economic issue.

Program infrastructure needs notwithstanding, EPA has begun to lay a solid foundation for a national USTfields initiative. EPA's Office of Underground Storage Tanks (OUST) launched a pilot program that will provide grants to states for state/local partnerships on USTfield revitalization. The USTfields pilot program was designed to promote working partnerships between state and local governments to address sites where CERCLA limits EPA involvement because of petroleum contamination from underground tanks.

This report will help enhance the prospect of an overall national USTfields program that can fulfill the Bush Administration's goal of common sense cleanups with important community benefits.

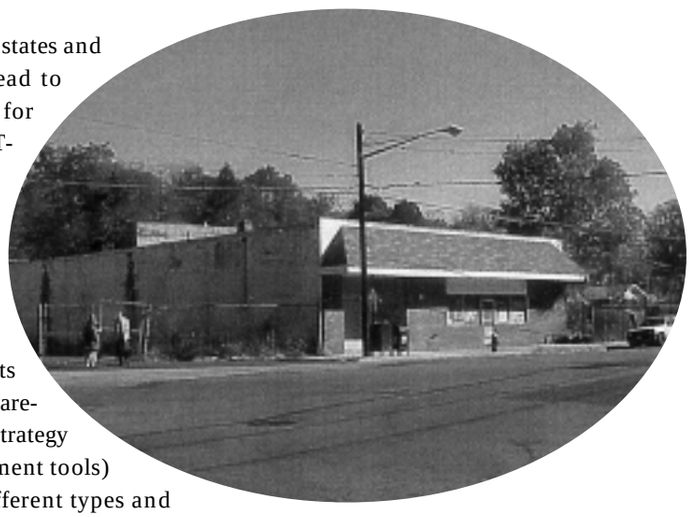
In October, 2000, EPA selected 10 pilot states (one from each of its EPA regions) to receive up to $100,000 each from the LUST Trust Fund for the cleanup and assessment of petroleum contaminated sites to drive the productive reuse of UST properties. In 2002, EPA plans to award 40 additional USTfields pilot grants. The initial 10 pilot states and their partner communities are:

- New Hampshire and the City of Nashua
- New Jersey and the City of Trenton
- Delaware and the City of Wilmington
- South Carolina and the City of Anderson
- Illinois and the City of Chicago
- New Mexico and the Laguna Tribe
- Missouri and Kansas City
- Utah and Salt Lake City
- California and the City of Oakland
- Oregon and the City of Portland

These states and cities are the pioneers of what EPA envisions to be a long-term approach to coping with tank-related petroleum contamination, one that will complement more conventional site strategies. Like the brownfield initiative at its early stages, USTfield pilot communities face formidable challenges. They must build effective state-local partnerships that are able to reach out to the private sector, and link various stakeholders together. They must leverage existing resources from unconventional arenas, such as brownfield programs and economic development authorities. Their efforts will succeed only if built on a solid foundation of information. Accordingly, this is the goal of the report — to build an information base that can be readily shared and used, that will foster effective state-local partnerships to promote UST site reuse.

To achieve this goal, this report examines the barriers, opportunities, and achievements of the first ten pilots, as well as highlights a few comparable efforts in states and communities that are not pilots. Ideally, the report will help enhance the prospect for the successful implementation of both the broader, 50-pilot USTfields initiative and an overall national program that can fulfill the Bush Administration's goal of "common sense cleanups" with important community benefits. Accordingly, the report:

- Provides an analysis of selected pilot efforts, and a series of UST profiles (Part II);
- Provides findings that analyze some of the cross-cutting issues that have arisen during program implementation, and identifies keys to success in USTfields revitalization (Part III);
- Offers recommendations on the future of the USTfields revitalization initiative, including opportunities for the implementation of the Brownfields Revitalization Act and EPA's initial 50-pilot USTfields initiative (Part IV);
- Identifies resources for further information and assistance on USTfields revitalization (Appendix 1); and
- Provides detailed, up-to-date information about tank-related programs, incentives, and policies in place in each of the initial ten pilot states (Appendix 2).



This report intends to show why it is advantageous for states and their communities to forge partnerships that can lead to reuse of sites with old tanks, and why it makes sense for these partnerships to pursue the goal of EPA's new USTfields initiative — facilitating practical approaches to environmentally responsible, economically viable tank site reuse. This report is not intended to be an "evaluation" — the effort is too new, the partnerships and policies too nascent — to make this report more than a snapshot of current endeavors and ideas. At the same time, though, it is clear that these USTfield pilots have accomplished a great deal: they have increased awareness of the issue and its opportunities; introduced the strategy of revitalization (and its attendant economic development tools) to the environmental arena; and established that different types and models of state and local approaches can effectively address the common problem of UST site contamination. And most importantly — tank sites are being cleaned up and reused. Even at this early stage in its life, the USTfields Initiative has tallied some successes.

Northeast-Midwest and NALGEP hope that this report can inform and encourage those with a stake in UST cleanups — from corner gas stations to large industrial storage sites — to consider how and why their USTfield efforts matter.

UNDERGROUND STORAGE TANK PROGRAM OVERVIEW

EPA administers the Underground Storage Tank (UST) program through its office of Underground Storage Tanks (OUST). Specifically, OUST has the responsibility for overseeing the Resource Conservation and Recovery Act (RCRA) Subtitle I program regarding USTs. OUST can also be expected to take the lead in the implementation of the petroleum cleanup portions of the Brownfields Revitalization Act. OUST provides technical and administrative support to EPA's regional, state, and territorial regulatory programs. Currently, some 85 percent of the funds that Congress allocates to OUST go directly to the states and tribes. Under the Brownfields Revitalization Act, EPA may provide funding both to states and directly to local governments for petroleum cleanups.

Establishment of the UST Program

OUST was created in 1985 in response to a congressional mandate to regulate UST activities nationally. Subtitle I was added to RCRA through the Superfund Amendments Reauthorization Act (SARA) to provide federal funds for assessments and cleanups to address petroleum releases from UST systems. SARA also established the Leaking Underground Storage Tank (LUST) trust fund, and detailed financial responsibility requirements for system owners and operators.

Definitions and Scope of the UST Challenge

An UST system is a tank and any underground piping connected to it with at least 10 percent of its combined volume underground. The vast majority of USTs store petroleum products at retail establishments, such as gas stations, and at petroleum refining facilities. Federal UST regulations apply to UST systems storing either petroleum or certain hazardous, "regulated" substances, as defined under CERCLA § 101 (14).

EPA estimates that some 2 million federally regulated USTs are buried at over 269,000 sites. Nearly all contain petroleum. Approximately 30,000 releases are reported each year. Until the mid-1980s, most USTs were made of bare steel, which is likely to corrode over time and leak. Faulty installation or inadequate operating and maintenance procedures can also cause leaks. The greatest potential hazard from a leaking tank is that substances can contaminate soil and groundwater. The latter is especially serious, since groundwater is the source of drinking water to nearly half of the nation's residents.

Regulatory Requirements

States play a central role in UST program administration and work with local governments to oversee UST activities. EPA can approve state programs if they meet certain requirements regarding performance, enforcement, and scope of tanks covered. Once approved, states take the lead role in program enforcement; thus, owners and operators need only comply with their state regulations. A few states do not have approved programs; in those, EPA works with state officials to enforce the federal requirements. Key UST requirements include the following:

NOTIFICATION — Owners and operators of tanks that were in the ground on or after May 8, 1986 were required to notify state or local officials of the tank's existence within 30 days of operation, unless the tank was taken out of operation on or before January 1, 1974.

TECHNICAL — UST technical requirements (set forth in 40 CFR Part 280) govern design, operation and installation; release detection; release reporting investigation and confirmation; corrective

UNDERGROUND STORAGE TANK PROGRAM OVERVIEW
continued

action; closure; and financial responsibility. Note that compliance with these technical requirements does not necessarily mean that tanks are removed, which could pose future barriers for USTfields revitalization. Different requirements are in place for new and existing USTs:

- **New USTs are those that were installed or that had commenced installation after December 22,1988. These tanks are expected to comply with all technical standards when installed.**
- **Existing USTs are those that were in service or for which installation had begun on or before December 22, 1988. EPA granted a period during which existing tanks could come into compliance with the technical requirements. The deadline to upgrade existing USTs expired on December 22, 1998. Currently, tanks must either meet the technical requirements or be properly closed.**

FINANCIAL RESPONSIBILITY — Owners and operators must demonstrate they have the financial resources to pay for corrective action (i.e., control and cleanup of releases), as well as compensate third-parties for bodily injury and property damages stemming from leaking tanks. This requirement can be followed by obtaining insurance and surety bonds. In addition, many states have "financial assurance funds" to cover cleanup and liability costs.

COST RECOVERY — Federal UST regulations require that efforts be made to recover petroleum site cleanup costs from the responsible owners or operators of the site before public funding can be used. While this "polluter pays" principle is appropriate, in many cases the cost recovery requirement has hindered states and localities from addressing blighted sites where the responsible parties are difficult to find, recalcitrant, or unable to contribute significantly to cost recovery.

LUST TRUST FUND — Capitalized through various fuel taxes, the Trust Fund has a balance of more than $1.5 billion, and collects hundreds of millions of dollars in fees and interest each year. Congress has allocated approximately $70 million annually in Trust Fund monies toward program implementation in recent years. Such Trust Fund resources can pay for:

- **corrective action assessments, cleanups, or monitoring;**
- **cleanup at sites where the owner and operator is unknown, unwilling, or unable to respond, or at sites that require emergency action;**
- **administrative activities for EPA, state, and tribal program implementation; and**
- **USTfield pilot grants.**

NEW OPPORTUNITY UNDER THE BROWNFIELDS REVITALIZATION ACT

New federal law has created the opportunity to bring additional resources and incentives for USTfields revitalization in America's communities. The Small Business Reliability Relief and Brownfields Revitalization Act, P.L. 107-118, signed into law on January 11, 2002, authorizes up to $50 million in USTfields funding annually for cleanup of brownfields contaminated by petroleum. Although U.S. EPA has not yet developed the guidance required for implementation of this provision, the Brownfields Revitalization Act clearly provides an excellent opportunity to create effective program partnerships that better meet the cleanup needs of localities. The Act provides resources and incentives for USTfields revitalization as follows:

UP TO $50 MILLION IN USTFIELD FUNDING ANNUALLY through 2006, or 25 percent of the brownfield grant amount appropriated by Congress, will be awarded for USTfields assessment and cleanups to local governments, local redevelopment and land-clearance agencies, regional councils and development organizations, states, or Indian tribes.

A VARIETY OF FUNDING IS AVAILABLE, in the form of grants for site assessments of up to $350,000 per community or site; direct cleanup grants of up to $200,000 per site; grants for the capitalization of cleanup revolving loan funds of up to $1,000,000 or more; and cleanup grants from such capitalized funds to other local, state, regional, tribal or non-profit entities. Grant and loan awards may also be used to purchase insurance to cover cleanup activities at USTfield sites.

CONSIDERATIONS FOR FUNDING AWARDS include the extent to which the grant will facilitate preservation of parks, greenspace and recreational areas; meet the needs of small, rural, and low income communities; facilitate the use or reuse of existing infrastructure; address the reduction of health and environmental threats; and leverage other USTfields funding sources.

ELIGIBLE SITES include those contaminated by petroleum or a petroleum product when EPA or a state determines that site to be of relatively low risk as compared to other petroleum-only sites in the state. EPA or the state must also determine that the USTfield is a site for which there is no viable responsible party, and which will be assessed, investigated, or cleaned up by a person that is not potentially liable for cleaning up the site.

The Act does not allow grants or loans to be made at USTfields that have used the Leaking Underground Storage Tank Fund. This could impact current and future USTfield pilot efforts, which are seeking to leverage LUST Trust Fund resources with a wide variety of other funding mechanisms. Given this potential restriction, plus the current uncertainty in the UST program about whether cost recovery requirements at many sites will hinder the investment of public funds, it is not clear whether these restrictions in the Act will limit the ability of states and communities to leverage USTfield funding effectively. However, the Act does permit EPA, on a site-by-site basis, to make funding available to USTfield sites that have received federal LUST funds, will protect human health and the environment, promote economic development, or enable the creation and preservation of public greenspace. Thus, EPA could issue guidance clarifying how such site-by-site funding determinations will be made in a way that gives communities the flexibility they need to address genuine UST problems and promote the USTfield revitalization mission.

MAKE, MODEL AND YEAR PART II

PROFILES OF UST REUSE IN THE INITIAL 10 EPA PILOTS AND OTHER AREAS

As the brownfield universe evolves, it is clear that sites with tank-related contamination — including but not limited to abandoned gas station properties — are a key concern in cities and towns across the country.

Therefore, an important part of this report is the profiles of cities and states with USTfield projects already underway. These profiles can help show local governments how various issues can be addressed, and how reuse strategies can be developed to promote cleanup and reuse of abandoned UST facilities.

This section profiles project activities from several of the initial USTfield pilots, as well as a couple of other locations which have undertaken similar efforts. Different profiles examine factors such as:

- key players and partnerships — notably, local governments, states, non-profit development organizations, and the private sector — to determine the roles they played;
- how the cleanup and reuse challenges were met — what strategy and process was used, how State Voluntary Cleanup Programs (VCPs) and other initiatives were used, and what approaches are most applicable to other UST situations;
- project financing — what types, what terms, and how it was secured; and
- project impacts, to the extent that they can be determined at this early stage.

These profiles are not intended to be comprehensive pilot documentaries; rather, they aim to focus on key issues and highlights from the pilot states and other communities with especially promising USTfield redevelopment initiatives underway.

This report profiles cities and states with USTfields projects already underway.

USTFIELD PROFILES

NEW HAMPSHIRE USTFIELD ECONOMICS — Leveraging and Creative Finance
NEW JERSEY — An Intergovernmental Partnership Fosters USTfields Reuse
DELAWARE — First State Takes the Lead to Rehabilitate Abandoned USTs
SOUTH CAROLINA AND ANDERSON — A "SUPERB" Focus on Pre-1974 Tanks
NEW MEXICO — USTfields as Foundation for Landmark State/Tribal Cooperative Effort
GILA RIVER INDIAN COMMUNITY — Tribe Takes Stock of USTfields*
CHICAGO AND ILLINOIS — The Power of Partnerships
KANSAS CITY, MISSOURI — City Infrastructure Financing and State UST Insurance Fund Provide Cleanup Catalyst
UTAH — State Environment and City Redevelopment Agencies Partner for Economic Results
OAKLAND, CALIFORNIA — New Tools Emerge from Partnerships
OREGON — DEQ Fills Up the USTfield Toolbox
ROCHESTER, NEW YORK — UST-Ridden Car Dealership Becomes Townhouse Development and 24-Hour Art Deco Coffeehouse*
SOUTH DAKOTA — State Covers All the Ground in UST Cleanup*

***These profiles are not official EPA USTfield pilot initiatives, but they are success story examples that can serve as models for other states and communities.**

NEW HAMPSHIRE USTFIELD ECONOMICS — LEVERAGING AND CREATIVE FINANCE

New Hampshire initiated efforts to integrate petroleum program support into its brownfields efforts in 1997 with its application to U.S. EPA for a statewide brownfields assessment demonstration pilot. The application emphasized the development of a holistic approach to brownfields sites, with the Department of Environmental Services (DES) integrating all existing petroleum program tools into an overall approach to resolution of brownfields pilot sites. EPA awarded money for the pilot on July 15, 1998 and DES made good on its promise to use existing state resources to address petroleum problems at its brownfields pilot sites. DES has removed tanks, used its Oil Pollution Control Fund to complete site investigations, or completed petroleum related remediation work or monitoring at more than half of its brownfields pilot program sites.

This integrated approach to brownfields sites, although successful, did not address the large universe of sites that were solely contaminated by petroleum. These sites could not typically be addressed by the existing state or EPA brownfields programs because of the CERCLA exclusion of petroleum contamination. New Hampshire saw the need to develop a program to address these sites, and when EPA's USTfields program was announced DES quickly sought to participate.

DES recognized that the negative value of USTfield properties was creating a pressing need to attract and leverage municipal and private sector investment. New Hampshire has devised a strategy to add value that includes: early and active municipal involvement to avoid a mounting back-tax burden; use of state funds to initiate assessment and cleanup and reduce uncertainty; and leveraging of state dollars to facilitate transfer of the property to an entity that will place it back into productive reuse.

Properties affected by contamination are appraised based on many factors, including the degree of risk of environmental liability and the expected profits from site investment. Sites with relatively little uncertainty are attractive to lenders and investors, but so-called "upside-down" properties lack perceived value because of environmental uncertainty and its potential costs. The perceived value of such sites is further reduced if they are abandoned and tax delinquent.

To reverse this trend, New Hampshire is demonstrating the advantages of a creative approach to USTfield financing that combines a state reimbursement fund, federal USTfields funding, and funds derived from an EPA enforcement tool known as a supplemental environmental project (SEP) to "prime the pump" at "upside-down" sites. The state has leveraged these resources as a powerful economic development tool to resolve uncertainty and promote private investment.

New Hampshire's DES administers a petroleum reimbursement fund (known as FUND) that can pay for site assessments and cleanups for historical releases as well as recent spills and releases. The FUND may be used following payment of a deductible, ranging from $5,000 per site to $30,000 for multiple sites that are jointly owned. Covering the deductible is the critical step in the FUND process.

"New Hampshire has shown how public resources can leverage private sector and municipal investment to resolve USTfields sites that would otherwise sit dirty and abandoned."

Gary Lynn,
New Hampshire Department
of Environmental Services

Applicants that seek FUND coverage must own the facility and property where the tanks are housed, and comply with tank rules such as requirements for the removal of substandard tanks. They also must initiate the site cleanup. According to state officials, about 71 percent of all leaking USTfields are eligible to participate in the program, and a top DES priority is encouraging owners to cover the deductible and subsequently trigger the use of FUND to leverage the most cleanups possible.

Using the example of the Belmont Gulf site, the chart below illustrates how FUND can add value to an USTfield — in this case, more than $130,000 of value:

Property Values of Belmont Gulf Site Before and After FUND Coverage and Town Purchase of Property

Valuation Factors	Before FUND Coverage	After FUND Coverage
Assessed Value	$61,000	$61,000
Back Taxes*	$24,364	None (town tax deeded the property and forgave back taxes)
Tank Removal, Gasoline, and Concrete Removal Costs	$7,500	None (state removed the tank using USTfields pilot money)
Site Investigation Costs**	$45,000+	$5,000 (FUND deductible)
Remediation Costs**	$50,000+	None (deductible triggered and remainder paid through FUND)
Net Value	–75,364	+56,000

* Factor that changed due to town purchase of property.
** Factor that changed due to FUND coverage.

continued next page

To date, DES has successfully cleaned up 2,000 UST and above-ground storage tank sites, the majority with FUND support. The approximately 1500 sites that have not been cleaned up are, in many cases, more difficult to address because of the severity of the contamination, owner recalcitrance, or lack of resources. FUND eligibility can be a significant tool for addressing these USTfields sites and it is noteworthy that DES has been able to establish FUND eligibility for USTfield sites that have been abandoned or are owned by people that lack the capabilities or resources to address the petroleum contamination. New Hampshire's USTfields program is rapidly expanding to continue to fill this need.

New Hampshire is working on more than 10 USTfield revitalization projects using EPA USTfield pilot funds and other leveraged resources. The following elaboration of the Belmont Gulf and Huckins Oil sites, and a discussion of three other projects in the Town of Canaan, demonstrate how New Hampshire has been able to leverage resources, expertise, and other assistance from a variety of sources to successfully revitalize its USTfields.

Belmont Gulf and Huckins Oil sites

A Supplemental Environmental Project is facilitating the reuse of the former Belmont Gulf and the Huckins Oil sites, both contaminated by petroleum and owned by the same person. SEPs are "environmentally beneficial projects," negotiated by EPA or a state as part of an enforcement settlement action, in which a violator agrees to carry out certain activities even if they are not legally required to do so, in lieu of stiffer cash penalties. In this case, the SEP monies primed the pump in a way that resolved uncertainty about the contaminated properties and allowed site revitalization to proceed.

The Town of Belmont initiated work at the Belmont Gulf site, completing two phases of a site investigation. However, based on the results of their investigations, the town decided not to take the property for back taxes because of liability concerns about known petroleum contamination at the site. To move towards action, DES used its USTfield pilot funds to complete test site investigations and remove all underground piping and tank system-related equipment. DES removed 19 abandoned drums at a cost of $8,271 in 1996, and sought cost recovery from the recalcitrant owner.

The Belmont site owner already had incurred approximately $100,000 in cleanup costs at a separate site that he owned in the Town of Wakefield, Huckins Oil. Having already paid amounts that exceeded the FUND deductible, he sought FUND coverage but was denied because of compliance problems at the facility. After lengthy negotiations, an innovative settlement agreement signed on April 30, 2001 paved the way for cleanup and reuse at both the Belmont and Huckins Oil sites. The agreement:

- enables FUND coverage to be triggered for the Huckins Oil site;
- requires the owner's $8,271 in fines at the Belmont site plus approximately $28,000 in fees and fines for the Huckins Oil property, to be deducted from the FUND monies awarded to Huckins Oil;
- suspends outstanding fines against the owner, as long as he complies with the order to update groundwater monitoring results and revise a remedial action plan; and
- removes a lien against the Huckins Oil property.

The settlement between DES and the former property owner, including an order to remove two 6,000-gallon tanks at the Huckins Oil site, addressed the remaining compliance issues and thus paved the way for FUND coverage at the Huckins Oil site. The settlement also included a SEP provision that earmarked a portion of fines to pay the FUND deductible at the Belmont site so that the FUND could finance the additional cleanup activities at the Belmont site. By lowering liability concerns and increasing investment in the site, the FUND created an incentive for the Town of Belmont to take ownership of the property.

To continue this progress, on April 27, 2001, DES proposed additional actions that DES would take at the Belmont site to create further incentives for the town to take title of the property. These actions, completed in July 2001, included:

- removing the remaining tank and contaminated soil;
- obtaining soil confirmation samples after the removal and completing the closure report;
- characterizing soil to determine whether soils in one test pit area should be removed; and
- sampling groundwater to determine where permanent monitoring wells should be installed.

These DES actions helped the town become eligible for additional FUND assistance, since removal, closure, and tank registration would satisfy the compliance requirement and taking the property for back taxes would satisfy the ownership requirement. DES is paying the deductible for its work at the Belmont site from the SEP settlement at the Huckins Oil site. In addition, Belmont can submit an invoice for prior site investigations for reimbursement from the FUND. Overall, this innovative enforcement approach broke the logjam at two sites that had previously not been moving toward cleanup.

On May 16, 2001, Belmont Selectmen voted to take the property for back taxes. The town will use the property to gain access to landlocked, town-owned conservation land and will eventually build a parking lot at the former service station. DES removed the underground storage tank during the summer of 2001 and completed the source area soil characterization and permanent monitoring well installations. If soil removal or long term groundwater monitoring is required, the related costs will be reimbursable from the FUND.

Three USTfields in Canaan, New Hampshire

USTfield pilot funds will expedite reuse of three inactive service stations in the Town of Canaan, New Hampshire. By leveraging cleanup funds at the sites, the New Hampshire DES helped galvanize local support for redevelopment and generate community involvement.

Located within several hundred feet of one another, the three sites share petroleum contamination that was discovered in 1989, when sewer installation work revealed ignitable soils and abandoned tanks. Since then, this so-called “downtown pollution problem” has prevented several redevelopers from obtaining financing for new site uses and downtown revitalization. These concerns became the focal point of a July 11, 2000 public meeting attended by town, state, and congressional representatives, as well as a community group, Friends of Canaan, which is actively working to reverse the economic decline of the downtown area.

The proximity of the sites to one another has allowed DES to conduct concurrent site investigations and create comprehensive groundwater flow maps in a cost effective manner. Two of the three sites are eligible for reimbursement from the state petroleum reimbursement FUND. Cost recovery negotiations have been completed at the third site, Webster Motors, making it now possible for the facility to become eligible for FUND. The site investigation resulted in the closure of one of the sites and a second site may potentially be closed after some additional groundwater monitoring.

Because they are located near the town’s recreation complex, these parcels are likely to be acquired by the town to expand the existing facility or by commercial developers for a restaurant or retail business that would benefit from the location. The town has negotiated a purchase and sales agreement at one of the sites and voters will decide whether to allocate the money for the purchase at an upcoming town meeting.

For more information about the New Hampshire UST program, contact Gary Lynn at 603.271.8873 or at glynn@des.state.nh.us, visit the State UST website at <www.des.State.nh.us/orcb/ustprogr.htm>, or contact U.S. EPA Region I’s Susan Hanamoto at 617.918.1219.

NEW JERSEY — AN INTERGOVERNMENTAL PARTNERSHIP FOSTERS USTFIELD REUSE

The U.S. EPA and the State of New Jersey are working closely with the City of Trenton, a Brownfields Showcase Community, to address four USTfield sites. The City discovered these areas during the process of a citywide cleanup of brownfield sites.

In Trenton's West Ward, a primarily residential area along the Delaware River, the City purchased a 1.5 acre property, formerly the site of a local newspaper, pizzeria, and auto service station, for redevelopment. Although two USTs were removed from the service station site, the City encountered two other unexpected waste oil tanks. The city removed the USTs, cleaned up the soil contaminated by leaks, and investigated the site to identify any residual contamination. In all, 95 tons of contaminated soil were removed from the site.

Because of initial uncertainty about the extent of contamination and the number of tanks still in place at the site, it had been difficult for Trenton to estimate cleanup costs. The USTfield pilot funds were helpful in defraying these unforeseen expenses and leveraging state funding from the New Jersey Hazardous Discharge Site Remediation Fund (HDSRF) for environmental investigation at the site.

In the Fall of 2001, buildings on the site were demolished and the construction of a new firehouse is expected to begin in February 2002. This is a particularly important development project for the City because the firehouse will serve an area that currently has an unacceptable emergency response time.

Other site activities in Trenton include:

THE WEST WARD SENIOR CENTER: During the redevelopment of this site as a senior center, an environmental investigation associated with an oil collection pit revealed one 550 gallon underground waste oil tank. The state environmental manager working on site ordered the immediate removal of the tank. Federal USTfields funds covered the cost of this emergency removal, which otherwise could have significantly delayed the project until other funding was obtained. Now back on track, this new senior center will provide numerous services to the City's senior population. Moreover, the New Jersey Green Acres program is providing funding to convert a portion of this USTfield lot into open space.

MARTIN LUTHER KING BOULEVARD: This site was an old corner gas station that raised environmental justice concerns in a low income neighborhood along Trenton's Martin Luther King Boulevard. Over 1,000 tons of contaminated soil, five USTs, and two buried waste oil drums were removed from the small 2,000 square foot site. The cleanup was a part of the City's larger redevelopment plans for the area that include new housing, a new school, and improvements to the neighborhood park. A nearby site owner is interested in redeveloping the site into a parking lot to support neighborhood businesses.

"Trenton encounters USTs at every redevelopment site, which can derail a project. EPA's USTfields funding could be a solution to these unexpected expenses."

Michele Lee Christina-Nieves
Trenton Economic
Development Director

CANAL PLAZA: This vacant lot is a former dairy and important part of the City's past and future. It is situated near the Delaware and Raritan Canal which runs through Trenton, near a new affordable housing development (built on a former brownfield), and across the street from Battle Monument Park, a historic site commemorating the Battle of Trenton. This neighborhood was also the center of civil rights rioting in the City in the 1960s. During an environmental investigation of the property, an unexpected, 1,000 gallon UST was uncovered. The tank and 150 tons of contaminated soil have since been removed. The site will be redeveloped by a faith-based developer, who is considering the construction of market rate housing on the site – the first market rate housing constructed in Trenton in years — as well as community open space.

In each case, USTfield-related activities such as tank and soil removal have improved the marketability and redevelopment prospects for the target sites.

For more information, contact New Jersey's Terri Smith at 609.984.3122 or visit <http://www.state.nj.us/dep/srp/bust/bust.htm>; call EPA Region II's Ben Singh at 212.637.4237; or contact Michele Christina-Nieves, Trenton's Director of the Economic Development Division at 609.989.3509, or mchristina@trentonNJ.org.

DELAWARE — FIRST STATE TAKES THE LEAD TO REHABILITATE ABANDONED USTFIELDS

The Delaware Fund for the Inability to Rehabilitate Storage Tanks ("FIRST" Fund) has enabled the "First State" to respond to USTfields that are abandoned or owned by individuals with no resources to rehabilitate the site. The program uses state-financed contractors to perform removal, assessment, remediation, and emergency response at sites that otherwise would lay idle. Unlike other funds that reimburse owners or purchasers that pull tanks and remediate the sites, through the FIRST Fund the state itself conducts the removal and related work at eligible sites, with no deductible costs necessary to trigger fund coverage.

In Delaware, the private sector has rehabilitated USTfields for commercial reuse at desirable sites, such as prime corner lots, and the Department of Natural Resources and Environmental Control (DNREC) has spurred cleanup at sites with financially solvent owners. The FIRST Fund will clean up the remaining "problematic" tanks, which are in less desirable locations and lacking responsible parties. The fund can also address tanks whose owners are not required to notify the state of their existence because they were taken out of operation before 1974.

DNREC developed the FIRST Fund with the Delaware Leaking Underground Storage Tank Committee, a stakeholder group of government entities, industry groups, and environmental and citizen organizations. Delaware's 1999 budget funded the program at $500,000 annually through a petroleum tax, and the program's policy was adopted in March 2000.

Concerns were raised about using state funds to remediate sites that ultimately will increase the property value for a subsequent owner who will reap financial benefits. However, the state decided that the alternative would be leaving numerous sites idle. In addition, FIRST Fund cleanups proceed at DNREC's pace in keeping with the department's process, thus discouraging speculators that might seek to trigger the fund to complete a transaction during a "window" based on a real estate deal.

Under the program, DNREC may at its discretion pursue cost recovery for certain sites from the "owner," defined as the last person to use the tank rather than former owners of the system or the current property owner. In addition, DNREC pursues private sector insurance coverage at sites with no identified solvent owner.

FIRST Fund in Action

The Delaware FIRST Fund is spurring rehabilitation at Trader's Gulf, a former gas station located near the center of the Town of Odessa at the gateway to a historic district. The owner/operator and his wife died with no will, leaving the site ownership uncertain. The site contains six registered USTs and two unregistered, regulated USTs, and some evidence suggests a total of ten USTs may be

"Delaware cleans up USTfields using the FIRST Fund because we know that the alternative is leaving them to sit idle. The USTfields grant will leverage FIRST fund at eligible sites."

Ellen Malenfant
Delaware Department of Natural Resources and Environmental Control
UST Program

present at the site. A prospective buyer who would like to locate a plumbing supply business there will not purchase the property in its current state.

There is a strong possibility that MTBE and other contaminants are present at the site. The registered USTs have incurred numerous violations and do not meet the 1998 upgrade requirements. In 1992, one of the tanks was taken out of service due to a system failure. The remainder of the registered tanks were removed from service in 1996. It is unknown when the unregistered regulated tanks were taken out of service. Moreover, none of the USTs were properly closed and the 1992 release has not been investigated.

In July 2001, an USTfield grant funded the removal of all the UST systems and the sampling needed to assess the site for contamination. According to Ellen Malenfant of DNREC's UST Branch, the greatest barrier to addressing the site was convincing all the stakeholders of the Fund's benefits. This was accomplished through outreach and communication, with the town helping out by relaying citizen concerns about the project to the Department.

For more information, contact the State of Delaware's Ellen Malenfant at 302.395.2500 or visit <http://sirb.awm.dnrec.state.de.us/deusthom.htm>; or contact EPA Region III's Karen Bowen at 215.814.3382 or Jack Hwang at 215.814.3387.

SOUTH CAROLINA — A "SUPERB" FOCUS ON PRE-1974 TANKS

South Carolina has large rural areas and many of its stations, as well as a majority of those in the target City of Anderson, were "mom and pop" stores that closed when Interstate 85 opened and drew new development closer to that corridor. While some prime locations have been purchased by chain retailers, less desirable sites have been left behind. Most of their owners are holding these sites, which have little real estate value.

South Carolina provides generous coverage for addressing releases from regulated USTs through its "SUPERB" (State Underground Petroleum Environmental Response Bank) fund. Owners can address site contamination through the SUPERB state fund, which covers up to $1 million per occurrence with a $25,000 deductible. However, the funding has brought to light several challenges for state and local government — challenges pegged to pre-1974 tank situations. As shown in the case study on the City of Anderson's downtown revitalization later in this report, South Carolina's approach is paying off for local communities.

Old, abandoned tanks are a critical issue everywhere and South Carolina officials have noted that they pose an especially thorny problem in their state. A large number of USTfield sites in South Carolina have tanks that were last used prior to 1974, including as many as three of eight potential sites in Anderson. The significance is that owners of tanks taken out of operation before 1974 are exempt from requirements that state officials be notified that the tanks exist. "This is the most difficult issue the state USTfield program faces," according to Mark Berenbrok of South Carolina's Department of Health and Environmental Control's (DHEC) UST Program. Despite SUPERB's low deductible requirements, it is hard to convince an owner to conduct an assessment when they can merely opt to let the tank sit idle without any regulatory obligation, unless a complaint of contamination is registered with the state.

Pre-1974 tanks do, however, pose issues for owners seeking to sell their properties, since a prospective purchaser might be reluctant to purchase such tank sites. In addition, lending institutions are reluctant to loan money on UST sites for all of the usual brownfield-related reasons, in spite of federal lender liability clarifications enacted in 1996. While SUPERB helps to fill an important funding gap in the state, it has met with several barriers to site cleanup and reuse. Such as:

INSUFFICIENT FUNDING: The SUPERB fund receives approximately $1.2 million each month from the half-cent per gallon fee on gasoline. That is not enough to cover all reported releases in a timely manner, leaving many contaminated sites to wait until funding is available. The fund may be further stressed because many locations operate without any private insurance or only enough to cover SUPERB's deductible. There is no incentive for owners or operators to carry insurance beyond the deductible because it must be exhausted before the SUPERB fund will pay. Due to the number of releases and limited state funds,

"For 'mom-and-pop' owners of vacant gas stations with old petroleum tanks, the problems are going to remain hidden, literally underground, unless localities and the state step forward to make revitalization achievable and worthwhile."

Mark Berenbrok
South Carolina Department of Health and Environmental Control UST Program

contaminated USTfields must be integrated into South Carolina's priority ranking system and addressed as funding becomes available.

REQUIREMENT THAT OWNERS PAY DELINQUENT FEES: Some owners and operators are prevented from using SUPERB because they owe fees for their USTs under state law. Until the annual fees of $100 per tank are paid, an owner or operator cannot access the SUPERB fund. In some cases, delinquent fees total thousands of dollars. These owners often have no resources to close tanks or pay fees.

COST RECOVERY UNCERTAINTY HINDERS SUPERB: At potential pilot target sites in Anderson, the state is partnering with the city to encourage tank or property owners to address their potential problems and promote site reuse. It can be difficult for state officials, however, to conduct an assessment because of their concern over EPA's cost recovery stipulation. Because this federal regulatory requirement hinders states from leveraging public funds on USTfield revitalization, long delays and regulatory uncertainty are often the result.

Nevertheless, South Carolina is making progress towards addressing a complicated UST issue that is especially prevalent in rural areas.

For more information, contact South Carolina's Bob Hutchinson at 803.898.4350, or visit <http://www.scdhec.net/eqc/ust/>; or contact EPA Region IV's Dana Hayworth at 404.562.9481.

CHICAGO AND ILLINOIS — THE POWER OF PARTNERSHIPS

In Illinois cities, like those in other states, many abandoned urban gas stations occupy highly visible corners. They fall into disrepair, and often attract vandalism and illegal activity, which limits their appeal to new users. Redeveloping these sites may be complicated not only by contamination from leaking USTs, but also by illegal dumping, abandoned cars, hazardous material in abandoned buildings, and illicit activities. By combining the resources and authority of various agencies and sometimes third parties, Illinois has successfully worked with Chicago to redevelop USTfields, especially abandoned gas stations. Turning these formerly blighted sites into assets such as community parks, housing, and retail space can help spark revitalization in the surrounding neighborhoods.

The Illinois USTfield pilot initiative, being carried out in Chicago in cooperation with the City's Department of Environment (DOE), is driven by the power of partnerships. It has effectively built on Chicago's successful Abandoned Service Station Management (ASSM) program, which has sparked cleanup and reuse of abandoned gas stations throughout the city. Administered by the DOE, ASSM was established in 1996 to address more than 500 abandoned and former gas stations throughout Chicago. The program aims to remove urban blight associated with abandoned stations and ensure that former service stations (already in commercial reuse) comply with UST regulations. In addition to USTs, the program addresses issues related to site abandonment, such as criminal activity and building safety. In 1999 alone, DOE issued more than 100 violation notices to the owners of abandoned and former service stations. If an owner will not come into compliance, the city may file a legal complaint or use city funds to clean up the site, seeking cost recovery from the owner afterwards. A key factor in Chicago's successful approach is that the city may, under local ordinance, impose a "cleanup lien" on UST sites where the owner refuses to comply with cleanup requirements. It will then foreclose on the lien to gain access and control over the site to conduct assessment and cleanup, thus avoiding the situation where improvements could be blocked by a recalcitrant or unknown property owner. Since the program's onset, DOE has cleaned up and secured more than 40 sites.

The USTfield pilot program is another method to aid in the redevelopment of these properties. Another tool that frequently has a prominent role in the redevelopment of old gas station sites is the state's risk-based cleanup approach, known as the Tiered Approach to Corrective Action Objectives (or TACO). Under TACO, sites are cleaned up to a level that reduces the risk of exposing either the public or the environment to contamination, in this case petroleum contaminated soil. TACO takes into account the intended future use of the site. For example, under the TACO approach, a site that will be reused for commercial activity (such as a retail store) may not need to be cleaned to the same level as a site that is intended for future residential space. In this way, TACO requires cleanup consistent with the long-term protection of the public and environment, without necessarily requiring that the petroleum be cleaned to pristine, background conditions. According to Bill Child, Chief of the Illinois EPA's Bureau of Land, the TACO approach has significantly lowered cleanup costs. TACO has greatly accelerated the cleanup and

"The cleanup of abandoned service stations can be the spark that renews the dangerous corner lot and revitalizes a neighborhood."

David Reynolds, Chicago Environment, Deputy Commissioner for Environment on Brownfields

revitalization of these dangerous sites, some of which have sat vacant for years. Abandoned gas station properties have been redeveloped, using TACO, for public greenspace, parks, parking lots, a day care center, and commercial property for retail stores.

The city and state are working together on a priority USTfield cleanup site — the 2759 West Washington site, which at one time housed a gas station and an auto repair shop. After efforts to recover the costs associated with the site from the owner proved unsuccessful, the city took title to the property to streamline the cleanup and redevelopment process. Cleanup involved demolishing a 12,000-square-foot building and removing eight USTs from the site. After soil testing confirmed petroleum contamination in the surrounding grounds, the city completed a site assessment, soil and tank removal, and installation of an engineered barrier to address residual contamination. USTfield pilot funds helped to expedite the cleanup and reduce the cost. Together, the city and state developed a cleanup strategy for the remaining soil. Cleanup is complete and a local developer is working with Chicago's Department of Housing to build affordable housing on the site.

The City of Chicago has redeveloped numerous abandoned service stations by forming partnerships with other city departments, state agencies, and local community groups. For instance, buildings on property acquired by the ASSM are demolished by the Department of Buildings and the properties are secured with fencing by the Department of General Services. The Department of Planning seeks end users for the property, or it is offered to other city departments that are in need of property for a specific end use, such as the Department of Housing, the Chicago Park District, or the Public Building Commission.

For more information on the Illinois USTfields initiative, contact Heather Nifong at the Illinois EPA's Office of Brownfield Assistance, at Heather.Nifong @epa.State.il.us; or Douglas Clay, at the Illinois Environmental Protection Agency, at doug.clay@epa.State.il.us. Illinois EPA contacts may be reached by calling 217-782-6762. For more information on Chicago's abandoned gas station revitalization efforts, contact David Reynolds at the Chicago Department of Environment, at dreynolds@cityofchicago.org or 312-744-9139.

NEW MEXICO — USTFIELDS AS FOUNDATION FOR LANDMARK STATE/TRIBAL COOPERATIVE EFFORT

In June 2000, a landmark cooperative agreement between the Pueblo of Laguna and the New Mexico Environment Department (NMED) paved the way for cost sharing and joint enforcement at an USTfield site - while respecting and supporting tribal sovereignty. The agreement addresses a non-Indian owned convenience store located on reservation land and adjacent, non-reservation property with potential sources of hydrocarbon releases. (See, "Cooperative Agreement Between Pueblo of Laguna and New Mexico Forges UST Partnership" Native American Network Newsletter, Fall 2000, page 7, at <www.epa.gov/epaoswer/non-hw/tribal/pdftxt/2000fnan.pdf>).

"The USTfields Initiative strengthens the collaborative spirit between sovereign tribal entities and the State of New Mexico and further enables both governments to protect the people of New Mexico and their environments."

Pete Majorie, Cabinet Secretary, New Mexico Environmental Department

According to Dan Rey-Bear, the Pueblo's legal representative, a cooperative agreement provides for less state administrative oversight than other approaches, such as a joint powers agreement, while allowing for joint site activities including inspections, permitting, and legal actions. The agreement also contains language that ensures that the site's owners and operators may obtain reimbursement from the State Corrective Action Fund after meeting basic fund criteria. In addition, the cooperative agreement encourages the tribe to obtain technical assistance from NMED in developing its UST management and remediation program.

Under this NMED/Laguna agreement, NMED is focusing its USTfield pilot work on a single non-tribally owned facility, operated on tribal land as a retail gas station for more than 40 years. The release has impacted a nearby surface watercourse used for irrigation, stock watering, and ceremonial purposes. Due to the shallow water table, the contaminant plume has migrated off-site and affected a public water supply line. The site was chosen because it poses a threat to public health and safety.

The NMED will use USTfield funds to replace a water line that serves two schools, several businesses and residences in association with implementation of a larger remediation plan at the site. NMED also will direct contractors to perform risk-based evaluations to determine site-specific cleanup levels. By working closely together, the tribe and the NMED will ensure that corrective action will be consistent with the proposed commercial future use of the property.

For more information, contact New Mexico's Joyce Shearer at 505.984.1935, visit <http://www.nmenv.state.nm.us>, or go to Environmental Protection Division, then hit UST Bureau; or contact EPA Region VI's Christine Cherrett at 214.665.7342.

GILA RIVER INDIAN COMMUNITY — TRIBE TAKES STOCK OF USTFIELDS

The Gila River Indian Community (GRIC), located outside of Phoenix, Arizona, has a long record of achievement in site remediation. An EPA Brownfields Showcase Community, GRIC has developed a RCRA Subtitle I UST program that brought all of the community's tribal, private, and federal USTs into full compliance by EPA's December 1998 deadline.

The GRIC Department of Environmental Quality (DEQ) program successfully researched all of the community's UST sites, interviewing knowledgeable individuals to pin down the precise location of sites that were previously identified. GRIC DEQ also investigated old lease records to identify the operators of UST sites for purposes of cost recovery. In addition, the department researched UST removal contractors' costs and performance records, and chose its contractors wisely, resulting in a removal cost at 32 UST sites of approximately $2,000 per tank, compared to the typical cost of $5,000-$10,000.

As with other tribes, a challenge for GRIC has been obtaining lease-holder information from the Bureau of Indian Affairs (BIA), which leases sites on trust land. Because sites have become contaminated and the land returned to the tribe, the GRIC DEQ has requested that the BIA notify the tribe of all leases at the time of origination, renewal, and closure. However, to date the BIA has not notified DEQ of any lease activity. Norman Moreno of the All Indian Pueblo Council's Pueblo Office of Environmental Protection asserts that this problem with BIA responsiveness is widespread throughout Indian country, and suggests that U.S. EPA could play a role in working with the BIA to resolve this issue.

For more information contact the Gila River Community's Janet Bollman at 520.562.2234, ext. 223 or at cercla@gilanet.net.

"The Gila River seeks to continue its process on USTfields with EPA support and, hopefully, attention from the Bureau of Indian Affairs."

Norman Moreno of the All Indian Pueblo Council's Pueblo Office of Environmental Protection

KANSAS CITY, MISSOURI — CITY INFRASTRUCTURE FINANCING AND STATE UST INSURANCE FUND PROVIDE CLEANUP CATALYST

Economically disadvantaged neighborhoods in Kansas City, Missouri have numerous old, out-of-service gas stations that are commonly located at major intersections. Using a combination of state, city and USTfield pilot funds, Kansas City is spurring local, state, and federal partners to join in redeveloping such sites that are impediments to broader neighborhood revitalization. The pilot sets in place coordinated funding, resource leveraging, and project management across numerous agencies.

Kansas City has targeted four service stations (noted in the chart below) as part of its pilot effort. It has identified sites that are sources of visual and environmental blight in the city's third council district. These sites were recommended by local citizen representatives based on their proximity to current redevelopment initiatives and their perceived health risk, in addition to their physical blight.

Through the pilot, Kansas City is partnering with EPA Region VII and the Missouri Department of Natural Resources (MDNR) tank program. The USTfields pilot funds will be leveraged with funds from the city's Public Improvements Advisory Committee (PIAC), funds available from the Missouri Petroleum Storage Tank Insurance Fund (PSTIF), and any costs recovered from the current or prior responsible tank owners and operators. PIAC provides municipal resources for infrastructure improvements needed for urban revitalization.

USTfield Project Funding for Four Target Sites

PROPOSED SITES	TASKS	COST ESTIMATE
2600 E. 28th Street	Demolish structures, remove tanks if needed, and clean up soil and groundwater, as required by the state.	$150,000
2815 E. 23rd Street	Acquire site or facilitate donation to non-profit, demolish structures, and work with BP Amoco to complete ongoing groundwater cleanup.	$50,000
2301 Benton Blvd.	Acquire site or negotiate joint project with current landowner, demolish structures, remove tanks if needed, and clean up soil and groundwater, as required by the state.	$150,000
2331 Vine Street	Acquire site or negotiate joint project with current landowner, demolish structures, remove tanks if needed, and clean up soil and groundwater, as required by the state.	$150,000
Related activities for the 4 target sites — Transaction and cleanup program costs, assembly, voluntary cleanup, and tank program fees		$25,000
ESTIMATED FUNDING NEED		**$525,000**

"Tank and other petroleum cleanups are key pieces of Kansas City's highest priority community revitalization projects. More resources are needed to get these pieces in place."

Andrew Bracker
Kansas City Brownfields Coordinator

FUNDING SOURCES	AMOUNT
Missouri Petroleum Storage Tank Insurance Fund	$100,000
Kansas City Brownfield Showcase Community resources	$25,000
City PIAC Funded – 28th Street Prospect	$300,000
USTfield Pilot	$100,000
TOTAL FUNDING PACKAGE	$525,000

Kansas City will maximize use of PSTIF monies where possible, and will use USTfield pilot funds to assess and clean up sites that are not eligible for PSTIF funds, and for costs such as tank excavation, cleaning, and disposal that are not eligible for PSTIF reimbursement. City infrastructure funds from PIAC will be used to acquire, demolish, and prepare the sites for redevelopment.

For more information, contact the State of Missouri's Carol Eighmey at 573.522.2352 or visit <www.dnr.state.mo.us/deq/hwp/tanks.htm>; contact EPA Region VII's Janet Hallier at 913.551.7532; or contact Andrew Bracker, the Kansas City Brownfields Coordinator, at 816.513.3002 or at andrew_bracker@kcmo.org.

UTAH — STATE ENVIRONMENT AND CITY REDEVELOPMENT AGENCIES PARTNER FOR ECONOMIC RESULTS

The State of Utah has moved decisively to redevelop USTfields, thanks to a strong partnership between the Utah Department of Environmental Quality (DEQ) and the Redevelopment Agency of Salt Lake City (RDA). This collaboration has enabled DEQ to focus on cleanup issues while RDA develops strategies for property marketing and reuse. In addition, their innovative site ranking procedure has gone beyond setting priorities for future work to strengthening the partnership and involving the community to forge a broad consensus on site reuse. According to Paul Zahn of DEQ, "our partnership is extremely gratifying since it results in achieving both environmental cleanup and economic reuse, as well as planning for strategic site reuse."

Nearly every town and city in Utah has an abandoned USTfield. Among the state's 4,226 registered USTs, approximately 3,740 confirmed releases of pollution have been counted as of January 2001. USTfields are a particularly serious concern in a state where 96 percent of the residents depend on groundwater as a drinking water source. Moreover, abandoned USTfields in low-income areas have proliferated as economic forces have driven gas stations out of local neighborhoods and into high-volume, suburban retail outlets. Many of these sites are covered with unsightly weeds and graffiti, creating community eyesores on prominent corner lots.

The DEQ and RDA responded to this challenge by partnering to bring underutilized properties back to productive reuse. Through an initial $25,000 USTfield grant, the agencies drafted a five-part plan that includes:

- Initial Site Screening and Prioritization;
- Stakeholder Coordination and Site Selection;
- Site Assessment and Cleanup Activities;
- Beneficial Site Reuse Planning and Marketing;
- Documentation and Reporting.

The initial partnership had access to several RDA incentives. For example, RDA administers the Vacant and Boarded Gas Station Program, which can purchase and clean up properties and then market them for reuse as affordable housing. Through this program, RDA may put the property's purchase price in escrow until the site is cleaned to commercial standards, which creates an incentive for property owners and sellers to participate in the cleanup. RDA also has an environmental loan program, which can be used for cleanup of petroleum contamination as well as for redevelopment of the site. In RDA project areas such as the Gateway District, Salt Lake City's Brownfields Showcase area, other loans including neighborhood business and property acquisition loans can be used as part of the project financing package and create additional incentives for redevelopment.

DEQ also provides funding incentives through an environmental loan fund that is available to eligible owners and operators for upgrading, replacing, or permanently closing UST systems to comply with federal regulations and protect the environment. Loan amounts may not exceed 80 percent of the approved cost of the project, with a limit of $15,000 per tank or $45,000 per

"Our USTfield partnership is extremely gratifying since it results in achieving both environmental cleanup and economic reuse, as well as planning for strategic site reuse."

Paul Zahn, LUST Section Manager, Utah Department of Environmental Quality

facility. Loans must be paid back within ten years at a fixed annual interest rate of three percent.

RDA and DEQ have collaborated in ranking UST sites according to both economic and environmental factors. RDA has significant experience in evaluating marketability and potential uses of properties, and DEQ possesses technical knowledge of environmental remediation and potential environmental roadblocks to site cleanup. Based on this experience, the agencies developed criteria to score each site and determine which should receive funding and priority attention. RDA's score is based on site size, configuration, development potential, cost, zoning, and need for building demolition. DEQ's score is based on whether tank closure, site assessment, and cleanup have been completed. In addition, they consider whether cost recovery from site owners is likely. Another factor is the readiness for a site to proceed; thus, the first sites chosen may not rank highest, but they are the sites that are ready to proceed first.

The greatest challenge for the Salt Lake program is to find interested redevelopers, especially for affordable housing, which is a local community priority. Small lots can be difficult to redevelop into housing without subsidy because they are more valuable as commercial space. In addition, owners of properties that were identified by the community as being suitable for redevelopment are not necessarily ready to work with RDA. Because the Vacant and Boarded Gas Station Program stipulates redevelopment for housing, RDA also must either rezone contaminated properties from commercial to residential, or encourage mixed-use development, which can be difficult to accomplish.

For more information, contact Utah's Dale Marx or Dale Urban at 801.536.4100, or visit <http://www.eq.state.ut.us/eqerr/ust.htm>; or contact EPA Region VIII's Joe Ann Taylor at 303.312.6152.

OAKLAND, CALIFORNIA — LOCAL UST PROGRAM CUTS COSTS AND SPEEDS CLEANUPS

As the brownfield universe evolves in California, it is clear that sites with tank-related contamination are a key concern in communities across the state. Oakland has led the way in USTfield redevelopment through its Urban Land Redevelopment (ULR) Program. ULR is a collaborative effort by the City of Oakland and the principal agencies charged with enforcing environmental regulations in the city to facilitate the cleanup and redevelopment of contaminated properties. In creating the ULR, the city made a proactive effort to include Oakland residents by forming a Community Review Panel. The Panel:

- Included individuals from environmental groups, community-based organizations and business groups, who met twelve times from 1996 to 1997;
- Obtained assistance from the EPA's Technical Outreach Services for Communities (TOSC) Program and representatives from U.S. EPA and the local environmental regulatory agencies; and
- Issued a report of recommendations that helped shape the ULR program.

The ULR program clarifies environmental investigation requirements, facilitates regulatory negotiations, and establishes Oakland-specific, risk-based corrective action (RBCA) standards for eligible sites. The Oakland RBCA standards are criteria that, when met, adequately address the risk posed to human health by contamination and are based on the geology, hydrogeology, and climate of Oakland. These standards are often more accurate and more cost-effective than federal and state RBCA standards that must account for highly diverse environments. The Oakland RBCA standards are organized into easy-to-read tables, and represent an "evergreen" set of values that is updated as new information becomes available.

The Oakland RBCA approach has already been used successfully at several sites throughout the city, including the location of a new Courtyard by Marriott Hotel, and the site of a new, five-story residential development in downtown.

The city has implemented an innovative institutional control known as permit tracking. The system flags sites with residual contamination in the city's computerized permitting system. This facilitates redevelopment by allaying community concerns about possible contamination and bolstering regulatory confidence that the conditions of site closure will be met. On average, Oakland's RBCA and permit tracking approaches have reduced the cost of field investigations and risk assessments by 50 percent. Hundreds of thousands of dollars in remediation costs have been saved on city-owned sites alone.

Oakland has focused its USTField pilot efforts on properties such as:

HOUSEWIVES MARKET BLOCK MIXED-USE DEVELOPMENT. The Housewives Market Block sits in the middle of downtown Oakland. Over time, multiple gas stations have occupied the site and nearby properties. In 1983, the Oakland Redevelopment Agency acquired the block.

Construction is scheduled to begin in the summer of 2002 on a new, six-floor, mixed-use development. The first floor will be a mix of commercial and residential uses, while the remaining five floors will be solely residential. In total, there will be 202 new units, with lofts on three sides and four stories of more conventional residential housing on the other.

"Our experience at the EPA USTfield pilot sites reaffirms the economic and public health benefits of the Oakland program's risk-based philosophy and institutional controls."

Mark Gomez
Environmental Program Specialist, City of Oakland

A risk assessment using the Oakland RBCA approach has shown no on-site risk from the existing contamination. Additional investigation is under way to better understand contaminant migration via groundwater and to confirm that all tanks have been removed. The city expects to receive a "no further action" letter from the local regulatory authority by spring of 2002.

HABITAT FOR HUMANITY HOUSING PROJECT. Once the site of an abandoned gas station in Oakland's Fruitvale-San Antonio district, the land at 2662 Fruitvale Avenue has been earmarked for a new Habitat for Humanity housing project. The city acquired the property in 1983 and has entered into an exclusive development agreement with the non-profit organization Habitat for Humanity. Construction is scheduled to begin this fall on four single-family homes. The houses will be built with "sweat equity" (i.e., volunteer work). They will be privately-owned by the future occupants upon completion of construction. A risk assessment using the Oakland RBCA approach has shown no on-site risk from the existing contamination. While an off-site risk analysis is ongoing, the city expects to receive a "no further action" letter from the local regulatory authority by the summer of 2002.

For more information, contact California's Liz Haven at 916.341.5752 or visit <http://www.swrcb.ca.gov/~cwphome/ust/usthmpg.htm>; or contact EPA Region IX's Matt Small at 415.744.2078 or April Katsura at 415.744.2024. Program documents may be downloaded from www.oaklandpw.com/ulrprogram.

OREGON — DEQ FILLS UP THE USTFIELD TOOLBOX

The Oregon Department of Environmental Quality (DEQ) is working with Multnomah, Baker, Umatilla, Jackson, and Lane counties to identify prospective sites where UST contamination is impeding local redevelopment efforts. To spur reuse of UST sites, DEQ is taking creative approaches to working with prospective new site users and communities. Some examples include:

- prospective purchaser agreements (PPAs) to limit purchaser liability;
- institutional controls such as groundwater or property use restrictions;
- concurrent cleanup and redevelopment approaches such as recommended building locations, vapor barriers or sub-slab depressurization; and
- technical assistance and information sharing to help encourage area development and revitalization on a broader scale.

Tools in Action — REACH Community Development

The former gas station at 1949 SE Division Street in Portland will be the new home for up to 15 people with physical disabilities. The property was abandoned by its former owner, and acquired by the county in 1998 through tax foreclosure. While the former owner had the tanks decommissioned by removal in 1994, cleanup done at that time proved inadequate.

Multnomah County, through it's Affordable Housing Development Program, offered the Division Street site to REACH Community Development, Inc., a local non-profit housing development organization. REACH has proposed building a two- to three-story apartment building, with 10 to 15 units for people with physical disabilities. The site is ideal for this purpose as it is located across the street from the Multnomah County Aging and Disability Services and is close to the city center.

The USTfield pilot initiative gave DEQ the funds it needed to carry out an adequate site assessment and prepare the corrective action plan needed to start this project and meet several project challenges. First, the site is located in a heavily residential area, and site cleanup and reuse plans needed to address community health and safety concerns and be sensitive to neighborhood needs. To assess impacts and evaluate exposure concerns, DEQ proposed the use of monitoring wells at the site's periphery. Second, DEQ facilitated the use of USTfield funding for the assessment by selecting a contractor currently engaged by the state to work sites orphaned by former owners. And third, DEQ has worked with the developer to identify building design and construction methods (i.e. engineered controls) and property and groundwater use restrictions (i.e. institutional controls), to manage exposure risks.

A Cornerstone of Community Revitalization — Eagle Point Garage

Eagle Point is a picturesque rural community in southwestern Oregon with a small "downtown" area. The Eagle Point Garage has been a local landmark, service station, and auto repair since the 1930s. The final group of USTs on the property was decommissioned by removal in 1999. Shortly after the decommissioning, the owner of the property passed away, leaving the property to his wife. The property had fallen into disrepair, and the building was soon to be condemned.

"Each polluted site poses its own unique challenges. However DEQ, in partnership with other agencies and local communities, has put together a toolbox of UST revitalization approaches to overcome these challenges."

Jim Glass, Oregon DEQ, Oregon USTfields Coordinator

The dilapidated appearance of this property and the unknown extent of contamination had become an impediment to the revitalization efforts in the community. In fact, a proposed development on an adjacent property was put on hold by the lender and investors until the Eagle Point Garage structure could be removed and the extent and magnitude of the environmental impacts could be determined. DEQ held several meetings with city officials and the property owner in an attempt to find a solution to this community-wide problem. A member of the regional Governor's Solutions Team also expressed an interest in seeing this site cleaned up and reused consistent with the city's comprehensive land use plan.

With the decline of the logging industry, the economic vitality of the city has decreased significantly. As the city struggled to find ways to improve its economic plight and revitalize the community, it became clear that addressing the Eagle Point Garage site was essential to the success of its comprehensive land use plans.

DEQ was able to document the fact that the owner was unable to pay for the investigation and the cleanup of this site. Once the "no ability to pay" determination was made, DEQ was able to utilize USTfields grant funds to assess the nature and extent of contamination on the property and to develop a risk-based corrective action plan for redevelopment of the site. The property owner leveraged private funds to demolish the building. Plans for reuse of the site are now being discussed. One possible reuse scenario is a parking lot for the 6,000-square-foot commercial business project across the street. The city's recent approval of the adjacent property development is contingent on finding off-street parking. Another benefit gained by the removal of the Eagle Point Garage is that a neighboring building can now be accessed for upgrading.

For more information, contact the Oregon Department of Environmental Quality's Jim Glass at 503.378.8240; or visit <http://www.deq.state.or.us/wmc /tank/ust-lust.htm>; or contact EPA Region X's Wally Moon at 206.553.6903.

ROCHESTER, NEW YORK — UST-RIDDEN CAR DEALERSHIP BECOMES TOWNHOUSE DEVELOPMENT AND 24-HOUR ART DECO COFFEEHOUSE

The 2.2 acre former Hallman Chevrolet automobile dealership and service garage, located in downtown Rochester, was redeveloped primarily for residential purposes. Some $10.6 million was invested in what is now known as Chevy Place for site preparation and construction of 77 new residential townhouses and apartments. Chevy Place also includes a below-grade parking garage and the renovation of the historically significant Hallman Chevrolet showroom as a 24-hour Art Deco-style coffee house and restaurant.

From 1930 until 1990, the site was one of the largest new car dealerships in Rochester. The dealership included a large, multi-bay service and repair garage, as well as a gasoline station. The site was vacant from 1990 until the city purchased the property in 1996. The project, which ultimately would take five years from start to finish, presented several challenges to the city and the developer, Home Properties of New York. Changes in New York State Department of Environmental Conservation (NYSDEC) cleanup programs, shifting redevelopment plans, historic preservation restrictions, street reconstruction, and funding constraints posed major challenges to the project — and these were in addition to the environmental concerns at the site, which included several abandoned USTs.

Contaminants found during investigations by the city included asbestos and gasoline, lube oils, used motor oil, and hydraulic oil. Investigators also found petroleum-contaminated soils beneath the former gasoline station and repair garage. Other soil contaminants included heavy metals and semi-volatile organic compounds. In groundwater, free petroleum product was present and dissolved compounds were detected at concentrations that exceeded NYSDEC standards.

During 1997, the city completed asbestos abatement, the closure of five storage tanks, the removal of 19 in-ground hydraulic lifts, the closure of floor drains and sumps, the removal of contaminated soil associated with storage tanks, and the installation of a blasted bedrock free product/groundwater recovery and treatment system. Home Properties' plans for expanded residential use of the property required a second cleanup phase and the demolition of the service garage. The second phase of remediation was performed from 1998 to 2000 under a joint agreement between Rochester and Home Properties. During that phase, 7,000 tons of contaminated soil and bedrock and 12 more underground storage tanks were removed under a NYSDEC stipulation agreement. In addition, engineering controls were installed — soil vapor extraction and passive soil venting systems — as required by the local health department.

PROJECT COSTS — Total cleanup project costs, including both phases of remediation, were approximately $750,000. Rochester financed the initial phase of the cleanup with part of its HUD Community Development Block Grant allo-

"These brownfield redevelopment projects are resurrecting and reinventing our existing infrastructure."

Rochester Mayor William A. Johnson Jr., at the grand opening of Chevy Place

cation. The developer funded the second phase of the cleanup. In addition, the city assisted Home Properties with environmental costs by providing direct reimbursement for certain disposal costs, providing the company with a 2.35 million loan for the redevelopment project, and reducing the purchase price of the property due to the environmental cleanup costs.

PROJECT BENEFITS AND AMENITIES — Rochester's first new downtown apartment complex in 20 years was finished in spring 2000. The project resulted in the construction of 77 new residential units — 97 percent of which were rented by July, 2000. Chevy Place's most distinguishing architectural feature is its Art Deco showroom, which remains standing due to its historic site designation. The former showroom has been renovated as a 24-hour coffee shop. The apartment complex is located on Rochester's east end cultural and theater district, near the Little Theatre, the Eastman School of Music and the Eastman Theatre, and several restaurants and museums. This project has added to the vibrancy of Rochester's east side, and has been a catalyst for additional private development in the area. Prior to redevelopment, the abandoned dealership property and buildings sat vacant for several years. Rochester Mayor William A. Johnson Jr. stated at the grand opening of Chevy Place that brownfield redevelopment projects such as this are " . . . resurrecting and reinventing our existing infrastructure."

For more information, contact the City of Rochester's Mark Gregor at 716.428.5978 or at mgregor@mcls.rochester.lib.ny.us.

SOUTH DAKOTA — STATE COVERS ALL THE GROUND IN UST CLEANUP

South Dakota operates the nation's largest voluntary abandoned tank removal program, taking the lead in completing and paying for UST removals and related activities. The state initiated the program in 2000 to aggressively remove an estimated 2,300 abandoned USTs containing petroleum throughout the state, at no cost to the owner. By tapping state resources, going beyond the minimum requirements of federal UST regulations, and clearing sites for reuse, the South Dakota program should provide USTfield redevelopers with a powerful incentive to revitalize these sites.

The program covers any gas station, fuel oil, and waste oil tank that has not been used for commercial operation since 1988. Abandoned USTs at non-commercial operations are also eligible. Since South Dakota takes ownership of the tank and its contents upon removal, the State is able to assure that the tank is decommissioned safely and properly and that it is not re-used.

To date the program has received more than 2,300 site applications, a volume attributed to the minimal application requirements and the work of local volunteers and statewide coordinators to publicize the program. By February 2002, USTs were removed at more than 2,000 sites.

The cost for the entire program is not expected to exceed $8 million. By using a competitive bidding process and clearly defining and limiting the initial scope of work, South Dakota has been able to keep costs low. To date, the average cost per site is approximately $2,500, including tank removal, limited excavation and soil disposal, tank disposal, removal and disposal of tank contents, and testing and reporting. The cost per tank at these multi-tank sites can be considerably less than $2,500.

The program is funded from both state and federal sources. The South Dakota Petroleum Release Compensation Fund (PRCF) was created in part to address environmental problems associated with spills from tanks containing petroleum products and is funded from a fee imposed on each gallon of gas sold in the state. The federal LUST Trust Fund also contributes to the cost of the tank removals as part of overall corrective action.

"South Dakota will quickly and effectively overcome its UST challenge, and with a little innovation, we will do it at low cost too."

Dennis Rounds, Executive Director, South Dakota Petroleum Release Compensation Fund

The program is a joint effort of the South Dakota Department of Commerce and Regulation, which administers the PRCF program, and the Department of Environment and Natural Resources. The PRCF program reviews, verifies, and approves applications and pays for the work, while the environment department hires contractors and arranges for the work.

By aggressively removing the cost and the stigma of abandoned tanks and contamination from all of the State's USTfield sites, South Dakota has made these properties ready for reinvestment, redevelopment, and revitalization.

For additional information, contact Dennis Rounds, Executive Director, South Dakota Petroleum Release Compensation Fund, at 605.773.3769 or dennis.rounds@State.sd.us; or visit <www.State.sd.us/denr/DES/Ground/TankYank/index.htm>.

A CHECK UNDER THE HOOD PART III

FINDINGS ON WHAT DRIVES SUCCESS IN USTFIELDS REVITALIZATION

From the preceding USTfield profiles emerge key issues that affect state and local efforts to deal successfully with tank contamination no matter what form it takes — abandoned gas stations, obsolete oil storage facilities, and other types of petroleum contaminated sites. This section examines some of the cross-cutting issues raised in the initial USTfield pilot effort, identifies barriers to USTfield cleanup and redevelopment, builds on the knowledge and ideas of local experts, and offers suggestions to enhance potential success for communities seeking to address this challenge.

One theme frames all of these findings — **USTfield revitalization will have the greatest local impacts when it is approached as an economic development opportunity with an environmental twist, rather than only as a pollution problem.**

USTfields should be viewed as an opportunity to unlock local economic potential with an environmental key. Turning USTfields into productive places again means more than closing leaking tanks and cleaning up soil. Although local officials need to recognize the distinct cleanup mission of EPA and state environmental agencies, the revitalization of these sites will require new approaches that build on the environmental work of these agencies. If contaminated petroleum sites are viewed only as pollution problems, disconnected from community revitalization goals and economic development strategies, then USTfield reuse efforts will struggle. If, however, localities and their partners view USTfield projects as real estate deals that further community development goals, then the environmental issues can be resolved in a manner that creates value, attracts investment, and gathers public support. This perspective on USTfields

USTfields should be viewed as an opportunity to unlock local economic potential with an environmental key.

This report identifies six key issue areas which will influence the ultimate success of the national USTfields initiative.

redevelopment also reflects the emerging agenda of U.S. EPA, which is seeking to integrate into its waste cleanup efforts a community revitalization and land re-use approach.

This approach means several things for USTfield stakeholders. First, USTfield reuse advocates should "begin with the end in mind," by identifying the prospective uses of the site, whether it be commercial/retail development, housing, a community park, mixed-use development, or even a new, modernized gas station. This end-use approach can help focus the environmental response, ensure cost-effective remedial decisions, attract investors and supporters, and provide incentives for overcoming difficult obstacles posed by contamination. This approach can also help USTfields initiatives connect with broader community revitalization strategies that have been embraced by the community. Second, it requires government officials to understand that regulatory processes need to meet development time frames, if prospective redevelopers and investors are to be attracted to these sites. This calls for action by states and localities to connect UST cleanup programs with community development goals, and for the use of regulatory incentives and flexibility on issues such as cost recovery to prevent site revitalization from stalling.

Third, this approach suggests the need to continue a risk-based corrective action (RBCA) strategy for UST site cleanup. RBCA and comparable methods identify cleanup standards that ensure protection of public health and the environment, without necessarily requiring that every bit of contamination be removed even if it does not pose a threat — an extremely expensive disincentive to reuse. For example, if it can be shown that the construction of a retail parking lot on top of a "hot spot" of petroleum contamination can contain the pollution and prevent it from reaching pathways to exposure to humans or nature, this remedy can replace an expensive "dig and haul" cleanup. RBCA, along with cleanup pegged to future land use and incorporation of engineered and institutional controls as part of the cleanup remedy, are common in many state UST and brownfield programs, and this approach should be expanded and improved in more communities. Great potential exists for these recognized and accepted remediation tools to be incorporated into a community based USTfield reuse strategy that supports economic development.

Overall, USTfield success will be strengthened by the creation of strong redevelopment partnerships among localities, state agencies, and the private sector. It will be further enhanced if these efforts are primed with state and federal resources and technical assistance, aided by new regulatory and legal incentives, and connected with the opportunities created by EPA's companion initiatives that focus on redevelopment as a goal, such as the brownfields program. Moreover, the national USTfields revitalization initiative will succeed and expand if the lessons learned from the initial 10 EPA USTfield pilot projects are identified and replicated in other states and EPA regions. This should begin with the 40 new USTfield pilots that EPA is expected to award in early 2002. And it should

continue throughout the 10 EPA regions and all 50 states, whether or not these efforts are official EPA USTfield pilots.

To reiterate, the findings and recommendations that follow build on both new EPA USTfield pilot activities as well as existing state and local initiatives which reflect the spirit and goals of the overall USTfield initiative. These findings come from local and state experts making observations on their challenges and needs, and national experts making observations on the promise and potential of innovative UST approaches to address these situations.

From this perspective, the Northeast-Midwest Institute and the National Association of Local Government Environmental Professionals have identified the following key USTfield issue areas which will influence the ultimate success of the national USTfield initiative as well as state and local approaches to the UST challenge:

- Establishing Strong State USTfield Programs
- Strengthening Local USTfield Capacity
- Providing Resources and Incentives for USTfield Reuse
- Overcoming Regulatory and Legal Challenges
- Enhancing Intergovernmental Cooperation
- Reaching Out to the Private Sector and Community Groups

Establishing Strong State USTfield Programs

Effective state UST programs are critical to the success of USTfields revitalization. The national UST regulatory structure is based on the leadership of states in ensuring UST compliance, monitoring, and enforcement of environmental standards. The core of this state role is the considerable amount of State UST Financial Assurance Fund monies that states have accumulated — some $1.91 billion as of 2001, according to a recent survey conducted by the Vermont Department of Environmental Conservation. These monies represent a significant opportunity to leverage still more resources for tank site cleanup and redevelopment at the local level.

Forward-thinking state officials are looking beyond UST cleanup to the revitalization of these vacant tank properties.

Forward-thinking state officials are looking beyond UST cleanup to the revitalization of these vacant tank properties. States can be more proactive in the USTfield economic redevelopment mission by building state capacity beyond tank closure to site reuse, directing a wider array of state resources to the local challenge, helping to build local capacity for USTfields revitalization, and streamlining regulatory requirements to provide certainty and reliable methods to resolve liability for site redevelopers. While the use of certain UST funds, such as State Financial Assurance Fund monies, are limited by regulatory mandates that require a focus on high-priority sites with known owners and operators, some states — such as South Dakota — have tapped a broader array of resources to address USTfield challenges that go beyond the limits of federal UST programs. Thus, an important key to USTfields success is the strengthening of state USTfield programs to meet a broader range of redevelopment needs.

FINDING 1

States are in the best position to develop the climate that fosters USTfield revitalization, leverages resources, and streamlines regulatory efforts associated with contaminated tank sites.

Given the statutory authority and regulatory structure guiding UST program efforts, states have the best ability to lead an USTfield revitalization initiative. USTfield pilot leaders explain that it is essential for each state to have certain basic programs in place, such as abandoned tank identification and abandoned tank removal programs. Beyond these UST basics, however, the most progressive states are enhancing tank closure and cleanup programs with broader redevelopment objectives. Within broad guidelines, states in fact do have the flexibility to carry out a variety of approaches to addressing UST situations, from priming the pump with initial resources, to providing regulatory mechanisms that support efforts by localities and the private sector, to covering the entire range of site cleanup activities. In fact, several of the EPA pilot states have put targeted UST cleanup and reuse incentives in place that are driving local site revitalization:

- Delaware's FIRST fund, established in March 2000, will spend $500,000 annually to clean up orphan sites.
- South Carolina's SUPERB Fund, financed through a half-cent per gallon environmental impact fee on gasoline, brings in $1.2 million per month. Third parties that want to address UST sites potentially have access to this fund.
- Utah offers a low-interest loan fund, with 10-year, three percent fixed interest loans for the non-cleanup portion of tank closures or upgrade projects.
- California has an Emergency, Abandoned, and Recalcitrant (EAR) account that can essentially take over cleanups in some cases.

NEW HAMPSHIRE COMBINES TOOLS FOR USTFIELDS SUCCESS

USTfields and state/federal petroleum cleanup programs can play a key role at brownfields sites, as illustrated by the City of Nashua's experience. The City was awarded a Brownfields Site Assessment Demonstration Pilot from EPA to help it address properties that will be affected by the Broad Street Parkway Highway project. The key property that Nashua targeted for redevelopment was the Whitney Screw site. The property was formerly operated by White Mountain Freezer and subsequently by a screw manufacturing company. The main buildings were constructed after World War I, with several more recent additions to the manufacturing complex. Nashua chose this property for its brownfields pilot because:

- **the property is large (5.4 acres and 90,000 sq. ft. of buildings) and in a residential neighborhood,**
- **over $270,000 in back taxes were overdue on the property,**
- **the property was severely underutilized and deteriorating, and**
- **the property has an assessed value of over $1,000,000 and has several historic buildings that could play a positive role in the community.**

Redevelopment of the Whitney Screw property was complicated by a significant gasoline floating product problem, the bankruptcy of the former property owner, and the refusal of the existing squatter to complete any environmental work. The EPA brownfields pilot paid for the investigation of a waste oil contamination area, former foundry, and plating room. The major problem at the Whitney Screw site, however, was the presence of up to five feet of floating gasoline product and four abandoned tanks. The brownfields pilot could not pay for work related to the floating product due to the CERCLA petroleum exclusion, and the State Petroleum Reimbursement Fund (FUND)could not pay because the property was in non-compliance with UST rules due to the presence of the four abandoned bare steel USTs.

A developer was interested in the conversion of the property to a mixture of retail and warehouse space. However, the developer was unwilling to proceed until a plan was in place to address the environmental liabilities of the property. The USTfields program stepped in and played a critical role in resolving the environmental liability and uncertainty at the property. This enabled the developer to purchase and then foreclose on the delinquent $2 million note on the property.

The USTfield pilot removed the four former underground petroleum tanks and expedited the eligibility determination for the FUND. The removal of the tanks, as part of the overall assessment and corrective action at the site, eliminated nearly half of the known tanks left in New Hampshire that were out of compliance with the December 1998 EPA deadline. The tank removals also brought the facility into state compliance and thus triggered FUND eligibility. Pilot assistance with FUND eligibility was essential to the developer's decision to proceed with this project.

The liability issues were resolved by dividing the parcel into two. The portion contaminated by the gasoline had the environmental liabilities addressed by the reimbursement of the environmental costs by the FUND. The developer will participate in New Hampshire's Covenant Not To Sue program for the other portion of the sites and will be legally obligated to implement only the provisions of the approved remedial action plan developed by the City's consultant under the brownfields pilot. The final element of the redevelopment package is a brownfields cleanup revolving loan fund (BCRLF) loan for the non-petroleum environmental work. The BCRLF loan is the first of its kind in New Hampshire, and the developer and DES closed on the BCRLF loan in January 2002.

Success with this project was dependent on the integration of multiple programs, including a key role for a variety of DES Oil Remediation and Compliance Bureau programs. The brownfields pilot started the ball rolling by clarifying the environmental issues, the USTfields program resolved expensive floating product removal liability and the abandoned USTs, the state Voluntary Cleanup Program provided liability relief for non-petroleum issues, and the BCRLF provided additional funding to facilitate the economics of the project.

In Oregon, for example, the state is taking the lead on providing the information needed to promote UST site reuse. There, officials are targeting approximately 300 abandoned tank sites for an initial assessment to determine their level of contamination, on the premise that availability of that information will provide a development incentive. The state views this as an important role, to "get people past their hump of fear."

But even with these types of innovations in place and working, more capacity is needed. The pilot states have recognized that capacity is an issue that cuts across all implementation lines, and is impacted by funding constraints. Some are trying to modify existing or define new agency processes to incorporate the UST initiative from a more broadly linked environmental/economic development vantage point. This may involve a host of staffing issues and mindset changes regarding the issue of tanks and the barriers of contamination.

In some areas, "capacity" has emerged as a two-pronged issue, with both local and state capacity lacking. Increasing state staffing to address the USTfields challenge could be difficult, as nearly every state is cutting back on UST programs to address revenue shortfalls. In Illinois, for example, state staff noted that site owners and prospective purchasers, as well as local officials, often lacked the technical experience and the confidence to proceed with USTfield projects. At the same time, state and local officials faced staffing constraints and could not devote the personnel needed to address those concerns. This meant that activities like gaining property access and negotiating with tank owners, or even working with them more informally to alert them to reuse opportunities and processes — activities which could advance UST site reuse on a broader scale — could not be carried out. Utah pinpointed a similar set of concerns, noting that there are insufficient state and local staff resources currently available to handle basic UST priorities, let alone a broader effort to integrate USTfields into an economic development mission.

FINDING 2

States should continue to move beyond tank closure and cleanup to site revitalization. To this end, states could help fill key USTfield cleanup and redevelopment financing gaps by channeling some of the $1.91 billion currently available in state cleanup funds into activities that meet the broader USTfield reuse mission.

The state UST programs across the nation have focused their efforts in recent years on a federal regulatory requirement that all leaking underground storage tanks be certified as compliant with environmental and public health standards — or appropriately closed — by 1998. But states are in a position to use various resources to move their programs beyond merely tank closure to the next stage — reuse of petroleum contaminated sites, especially abandoned properties.
There are several approaches that states might consider to promote site revital-

ization. A state could establish an USTfields coordinator whose role would be to build on cleanup activities by promoting redevelopment efforts. A state could also take actions to coordinate their UST cleanup programs with existing state and local economic development programs, resources, and regulatory incentives.

To this end, states could consider more creative deployment of existing LUST financial assurance funds. States have accumulated significant amounts of resources to deal with UST sites. While recognizing that these state funds must operate within federal criteria and guidelines that could constrain their use in some UST situations, and that most states have spelled out some sort of limit on eligible activities, there is no question that these funds could help fill some of the key tank site cleanup and financing gaps. The profile of UST cleanups in South Dakota in this report shows how one state resolved to go beyond the minimum required by federal regulation, leverage more state resources for UST cleanups then required by federal law, and address a broader array of tank problems.

In some cases, state UST funds might be used as a pivotal piece of a broader financing package aimed at UST site reuse — a classic leveraging scenario. State funds could cover costs eligible under their criteria, such as site assessment or cleanup; this could free up resources from other places (such as state business development or federal redevelopment programs) to meet related redevelopment costs at a specific property. For example, some pilots have emphasized that risk communication, and education and outreach on UST reuse to the community, can be resource-intensive activities that strain the capacity of local governments. Such activities are clearly connected to the USTfields mission, and they might set the stage for state fund involvement at the appropriate point in the process. In other cases, state funds could support the long-term oversight and management of UST sites that use institutional controls as part of the cleanup remedy.

State UST funds might be used as a pivotal piece of a broader financing package aimed at UST site reuse — a classic leveraging scenario.

Finally, in a specific example, Oregon attributed the USTfields pilot grant to enhancing its state capacity, by providing it with a mechanism to allow its overall UST program to become more active in brownfields revitalization and coordinate better with the state's economic development programs.

FINDING 3

States could help provide certainty and finality on UST liability for localities and prospective redevelopers, by integrating USTfields regulatory tools with brownfield voluntary cleanup programs.

State voluntary cleanup programs — or VCPs — address brownfield sites that do not meet U.S. EPA's criteria for placement on the Superfund National Priorities List, or federal criteria for emergency removal of contamination. These sites come under state control. As of the beginning of 2002, 48 states had VCP programs in place to encourage brownfield site cleanups. Existing VCPs — with their focus on process certainty and finality — have the potential to be significant UST reuse tools. In fact most state programs do allow sites with petroleum contamination to be addressed. These programs provide an opportunity for sites that do not easily fit LUST Trust Fund or other requirements to be addressed nevertheless.

But current state use of VCPs for USTfield situations varies significantly. Some states, like New Jersey, resolve UST issues through the state VCP, while other states rarely (or never) make that linkage. States like South Carolina, where petroleum sites are barred from the VCP, report that USTfield's face a complicated bureaucratic process that has slowed revitalization. In many states, voluntary programs are targeted specifically to overcome the barriers associated with brownfields activity and to better link together both cleanup and redevelopment activities that may be needed at a site. This concept could have important applicability in USTfield situations. For example, Chicago is encouraging the use of the state's risk-based "Tiered Approach to Corrective Action Objectives" (or TACO) to allow site owners to map out cleanup approaches that can significantly lower remediation costs at tank sites.

The new federal brownfields legislation, signed into law in early January 2002, strengthens the role of state VCPs by giving them clear and broad final authority over site cleanups. It also establishes a level of federal liability relief for adjoining property owners, which could benefit property owners downgradient from UST sites, if states have implemented similar liability relief mechanisms.

State voluntary programs are particularly popular because they allow private parties to initiate cleanups and work cooperatively with state agencies to avoid some of the costs and delays that would likely occur if the sites were subject to enforcement-driven programs. And since voluntary programs involve a cooperative effort with regulators, as opposed to the adversarial nature of enforcement-driven cleanup programs, actual clean-up and state approval of the cleanup process can often take less time — sometimes several months less. This time saving can be very valuable to someone considering taking on a brownfield site, a critical factor for new users who may be thinking about the site for a redevelopment project.

In short, VCPs offer a way to make it easier and more predictable to bring contaminated UST sites back to productive use. They do this by establishing a recognized and predictable process for determining how clean is clean at any given site, and what steps need to be taken to achieve this. They also bring certainty to reuse of contaminated sites by offering a certain level of liability relief, as stipulated in the new Brownfields Redevelopment Act. This appeals to lenders and developers and gives them the assurance they need to take on brownfield sites, and this level of certainty and comfort should grow over time as the VCPs take hold and build a track record level of trust.

State VCPs can make it easier and more predictable to bring contaminated UST sites back to productive use.

At the same time, it is important to note that this approach may not be advantageous for every state. In Missouri, for example, the legislature has chosen to provide a long-term liability protection device for UST sites via the state tank fund. As a result, state officials there do not see the need to use brownfield VCP approaches for their USTfield sites.

LOCKPORT, ILLINOIS – MAKING THE BROWNFIELDS/USTFIELDS CONNECTION

A problem site in Lockport, Illinois has emerged as an example of a successful commercial reuse that took more imagination and persistence, rather than cash — typical of a growing number of small brownfield sites. While this particular UST site was addressed before the advent of the EPA USTfield pilot initiative, it can serve as a good model of how to deal with abandoned gas stations in a creative and economical way.

The owner of the Lockport site reported a petroleum release in 1989, and subsequently removed five tanks from the property. He did not fully clean up the site and, abandoned the site shortly after pulling the tanks. After sitting idle for a couple of years, the site had become a real blight on its neighborhood; the old station had become overrun with weeds and attracted vandals, forcing values down in the surrounding properties. By 1996, the site looked so ragged that the City of Lockport stepped in to maintain its appearance.

But efforts to find a new user for the site were unsuccessful, because of perceived cleanup costs and potential liability concerns. In 1998, Lockport applied for assistance under the Illinois Brownfield Redevelopment Grant program, in cooperation with a new site owner who had acquired the site at a county foreclosure auction. In Illinois, abandoned UST sites are eligible under the Brownfields Redevelopment program for up to $120,000 for site assessments and help in preparing remediation action plans. In fact, 40 percent of all grant recipients use this brownfields program at UST sites.

The grant allowed Lockport to carry out a site assessment, using the state's risk-based cleanup process — the "tiered approach to corrective action objectives" (or TACO). Ultimately, the site was remediated for less than $25,000, with a new parking lot capping contamination and serving as part of the cleanup remedy. In addition, most of the existing structure was able to be rehabilitated and reused. Today, the site houses a retail telecommunications business.

Other UST liability issues may not be addressed simply by VCP programs, and may require the development of federal and/or state guidance policies. For example, some states and localities have mentioned that it is not clear whether the lender liability protections provided by 1996 amendments to CERCLA apply to lender activities at petroleum contaminated UST sites; EPA has made clear that such lender liability protection applies to UST sites, but further emphasis and outreach may be needed to give sufficient comfort to USTfield funders and financiers. And, because most UST site liability issues are related to state regulatory programs, it is important that states likewise establish lender liability protections for petroleum contaminated sites. New Hampshire, for example, has lender and local government (for tax deeded properties) liability protections in its petroleum cleanup statute.

FINDING 4

States should promote collaboration on USTfield revitalization among key agencies handling environmental, economic development, growth planning, housing, infrastructure, and other relevant issues.

Projects centered on reuse of contaminated sites often suffer from drawn-out agency review time frames and multiple reviews, which drives up project costs — and this situation is typically worse when multiple government agencies are involved. There is no question that inter-agency coordination among agencies with a common interest in site cleanup and reuse can bring important benefits to new site users.

Effective collaboration can enhance the process in a variety of ways, as can be seen from efforts in Utah. The Salt Lake City Redevelopment Agency and the state's Department of Environmental Quality have joined forces in ranking sites according to both economic and environmental factors. This allows the marketing and technical environmental expertise of both agencies to play into the prioritization process, and allows the potential for redevelopment to weigh into city decisions about which sites are the best candidates for attention.

States are in an excellent position to streamline inter-agency coordination within their agencies, and to promote state investments at these UST sites. State leadership can be critical in terms of resolving overlaps in administrative jurisdictions and oversight, saving resources and valuable time. The new Brownfield Revitalization Act includes up to $50 million for states to use to enhance their response programs; some of this could be used to link the resources of various agencies and departments that affect site cleanup and reuse.

Coordination among agencies with a common interest in site cleanup and reuse can bring important benefits to new site users.

Strengthening Local USTfield Capacity

USTfield pilot activities have shown that UST-related partnerships really come to fruition "on the ground" at the local level. Local governments are ideally situated to foster USTfield activities and promote private sector investment that meet overall community revitalization goals. Local officials are also in the best position to identify and prioritize sites for cleanup and reuse. With the support of state and federal resources and partnerships, localities can build the capacity necessary to sustain USTfields efforts beyond this pilot stage and for the long term.

Localities need sufficient resources to build program capacity and to leverage site-specific USTfield projects.

FINDING 5

A major challenge to the revitalization of America's abandoned gas stations and other petroleum contaminated sites is the lack of local capacity to handle the problem. Localities vary significantly in the level of resources and staff dedicated to environmental and economic development programs — if such staffs exist at all. Moreover, because the USTfield redevelopment movement is so new, with tools and resources just now emerging, many localities have not had the opportunity to establish programs dedicated to this important community challenge. Even those that have initiated programs cite capacity challenges; paperwork and matching fund requirements associated with state and federal UST programs can be daunting. The experience of the localities involved in the initial 10 EPA USTfield pilots also shows how costly UST cleanups can be, often rising to tens of thousands of dollars or more each. Several USTfield pilot communities have also voiced concern about their ability to handle the long term management and oversight of UST sites, particularly when institutional controls are used as part of a remedy and contaminants remain on-site for the long term.

For all these reasons, localities need sufficient resources both to build their program capacity and to leverage site-specific activities. Often, a local champion with a vision of USTfields revitalization — perhaps a local elected leader or public works official — can provide the spark that gets USTfield reuse underway, leverages more resources, and begins to build a track record of success. With new USTfields opportunities emerging from the state and federal government, local governments should consider whether the time is right to dedicate local resources toward the effort. Clearly, those localities that invest now stand the best chance of leveraging more USTfield dollars from state and federal programs later. Further, USTfield success stories in a growing number of communities are demonstrating that these investments can pay quick and significant returns, as local tax bases expand and reinvestment returns to blighted areas.

FINDING 6

Localities need assistance in addressing orphaned USTfield sites with unknown, unreachable, or financially incapable owners.

Often an USTfield redevelopment will move forward when the responsible site owner is identified, cost recovery techniques are applied, and cleanup issues are resolved. However, this straightforward approach will not work if the site is abandoned. Many local communities and Indian tribes are struggling with the best way to deal with sites at which the site owner and other responsible parties are either long gone, unknown, or too difficult to reach — the so-called "orphan" sites. This problem is particularly difficult when the site was previously owned by "mom-and-pop" independent owners. Initial analysis suggests certain approaches that could help localities better address orphan sites.

First, investment of public resources, such as state or federal UST monies, may be necessary to turn these orphan sites around, especially where the level of cleanup costs makes it difficult to attract private investment up front.

Second, federal and state cost recovery policies, which require that reasonable efforts are made to obtain cleanup costs from responsible parties before public funding can be invested, could be made more flexible and realistic, to better address the challenge of orphan sites. How far must the cost recovery effort go at a site where the owner is difficult to find, let alone bring into the process? The importance of this cost recovery issue is discussed further at Finding 15.

Third, many localities report a need for clarification on how a local government can acquire access, control, and /or ownership of an abandoned USTfield site without exposing itself to the specter of potential liability. South Carolina, for instance, notes that local governments are often afraid to touch orphan sites because of concerns over being identified as the responsible party as site redevelopment progresses. Ways in which EPA and the states could provide additional guidance and clarification on liability issues for localities at orphan sites are discussed later in this report.

TRIBAL USTFIELDS ISSUES IN EPA REGION IX

Some of the most difficult USTfield issues on tribal lands center around land leases and ownership status of USTs upon termination of the lease. One phone call that U.S. EPA Region IX received from an owner/operator of USTs on tribal lands illustrates some of the problems associated with these leases.

This owner/operator of the petroleum-contaminated site has leased land from a tribe and the federal Bureau of Indian Affairs (BIA) to operate a trading post and gas station. There were USTs and a surface diesel generator on the property from a previous owner, one of which the new owner used for a short period until his own tanks were installed. The owner now wishes to upgrade his entire operation replacing the old UST system with a new one that is in compliance with all current regulations. However, he is currently operating under an expired lease. He is willing to remove and remediate any problems associated with the old UST system, but does not want to be held responsible for the USTs or surface spills associated with the prior lessee. In addition, this trading post is the only gasoline supply within about a two hour driving time for the residents in the area, making this station an essential supply source.

As a result, this property could easily become abandoned and a potential USTfield with ownership of and liability for the USTs reverting back to the prior lessee or the tribe. This could raise cost recovery issues, or concerns over public funding needs if past owners prove insolvent or unreachable.

Another challenge for tribes considering USTfields work in EPA Region IX has been in obtaining lease-holder information from BIA. When BIA leases sites on trust lands to non-tribal farmers and retail gas suppliers, it must ensure that lessees provide sufficient financial assurance to comply with all federal and tribal laws and regulations through all phases of the lease. Many of these leased sites have become contaminated with petroleum and returned to the tribe. This has prompted some tribes to request notification from the BIA of all leases at the time of origination, renewal, and closure of the former UST uses. However, tribes assert widespread problems with BIA responsiveness throughout Indian country and suggest that the U.S. EPA could play a role in encouraging its sister agency to address these tribal USTfield needs.

These land-lease-related problems in determining prior ownership of USTs will probably persist for the majority of USTfields on tribal lands in Region IX. Unfortunately, these issues may play a major role in tribes' ability to obtain LUST Trust Fund monies for addressing USTfields on tribal lands due to cost recovery requirements. However, changes to tribal and BIA lease language and leasing practices could address many of these issues for future sites.

Tribes that are interested in the USTfield program should coordinate with their respective EPA regional UST program. EPA USTfields contacts can be found at <www.epa.gov/swerust1/regions/index.htm>.

Localities will enhance their potential for successful USTfield reuse if they integrate USTfields into broader community development goals.

FINDING 7

Viewed in isolation, a contaminated USTfield may appear only as a problem. Yet, communities that are working to integrate USTfield cleanup into various parts of their overall development vision and process are seeing greater benefits from their USTfield strategies. When a locality connects USTfields to broader goals such as small scale commercial development, infill housing, tax and other incentive programs, or the development of parks and recreational facilities, USTfield sites can emerge as local opportunities. Often, communities seeking to connect USTfields to broader revitalization goals will use techniques such as design charrettes or other community stakeholder processes to create the overall vision.

For example, Kansas City, Missouri prioritizes UST sites in targeted revitalization zones, because USTfield revitalization is so resource and staff intensive. Through

this approach, USTs can be cleaned and redeveloped through the overall momentum of a larger project. In Trenton, tank site projects are being considered from the perspective of the city's need for commercial development space and public recreational areas. In other cities, like Oakland, project coordination among state and local agencies and community groups is proving to be an important approach when it comes to attracting private participation at UST sites. Oregon's UST staff are working to improve tank owners' access to broader brownfield incentives within the State, and the Governor's regionally focused Community Solutions Teams are trying to promote this as well, especially in smaller jurisdictions. Utah's UST program routinely interacts with all players in the process to encourage coordination, such as the regulated public, other regulatory agencies, environmental consultants, real estate agents, developers, interested buyers and others. Utah extends this coordination to make sure that UST site responsibilities go to those entities with the greatest expertise; accordingly, the UST office leaves site marketing to local redevelopment agencies, because of their experience in this arena.

FINDING 8

Localities should be thinking now about how to sustain and institutionalize USTfield and brownfields revitalization initiatives beyond the EPA pilot stage.

Localities should be thinking ahead now to "life after the EPA USTfields initiative," to ensure the staying power of their local programs until the UST challenge is met. The sustainability of local programs and their momentum after EPA's seed support has ended is likewise an issue with respect to local brownfields programs. Even at this nascent stage in the UST pilot initiative, a handful of cities and states, such as Kansas City and Missouri, are working to set the stage for program continuity. This will be a big issue in each of the pilots, some of whom have noted that a one-time infusion of pilot resources is not a lot to address problems that were decades in the making. And at the same time, nearly all of the pilots have recognized their "prize" for what it is — seed money to allow them to begin to address UST issues in general (and sites in particular) in a new or expedited way. Comparable to the early EPA brownfield pilot communities, how the first USTfield pilots formalize their programs will influence the approaches of other cities pursuing UST reuse goals in subsequent rounds of EPA designations.

EPA Region VIII has articulated four "life after" goals which lay out how it intends to help ensure USTfield program continuation, in Kansas City and other communities in its territory, by:

- integrating USTfields into the regional brownfields team;
- looking for existing flexibility in the program, such as on the issue of cost recovery;
- focusing on capacity building at the local level, and building relationships with state and local governments to address USTfields; and
- publicizing and replicating successes.

To sustain long-term USTfields efforts, localities should consider a number of approaches. First, localities should seek to integrate UST efforts into broader brownfield revitalization programs and initiatives. Second, localities must make

INSURANCE AND INCENTIVES: LESSONS FROM NEW HAMPSHIRE

The negative value in USTfields properties creates a pressing need for states to add value in order to attract and leverage municipal and private sector dollars. Prospective purchasers, however, are wary of even small levels of uncertainty; hence, incentives are needed to foster investment. Some of these incentives may be available through the private insurance market.

The New Hampshire experience also showed that private insurance often needs a public-sector complement like that provided through the State's tank site FUND and the USTfields initiative. Based on New Hampshire's experience, while private sector insurance can be a useful tool for cleanups of contaminated sites, it does not replace the role of state and local governments in leveraging public and private sector investments. For example, at the outset, while the New Hampshire FUND reimburses for known past releases, insurance funds typically do not. In other cases, insurance may be purchased initially to assure officials of compliance and then dropped while a tank facility is in use, which does not lead to real certainty. And of course, insurance can not address issues of back taxes. New Hampshire has demonstrated that, often, private financing and risk management tools like insurance need to be combined with financing and risk minimization resources from the public sector.

USTfield revitalization the jurisdiction's routine way of doing business, fostering an awareness of the nature and needs of UST site reuse within various departments, such as community development, law, and public works. Eventually, this might involve activities such as naming a point person to coordinate USTfields work, and establishing a local policy framework that builds on and formalizes productive state partnerships and commits local officials to supporting UST site reuse.

Other approaches may involve learning how to build on early UST site successes and move to more challenging projects. It may focus on maintaining program momentum, by keeping stakeholders satisfied and engaged. And as states like New Jersey have suggested, it will also likely involve broadening the local knowledge base, so that communities can learn how to deal with negative value or "upside down" tank properties more effectively within the context of a broader community revitalization strategy.

Moreover, localities need an UST revitalization champion who keeps the process on track, helps to rally resources, serves as a point person for various stakeholders and partners and, in general, just carries the necessary water for the effort. For example, Illinois has considered providing extra staff to local communities, especially smaller ones, to provide short-term, start-up technical assistance and pilot support. Illinois is also considering offering training to state environmental agency staff to help them better understand, and advocate, the economic issues related to USTs. This training could include information on economic tools such as grant and loan programs, real estate development factors and incentives, or tax increment finance.

Experience in the EPA brownfields program shows that it is usually a mistake to wait until the time that pilot funding ends before a locality decides how it will sustain the program. Communities need to think now about developing

Communities need to think now about sustaining USTfield programs beyond the EPA pilot stage.

staff champions and program capacity, identifying sources of ongoing funding and assistance, and maximizing the momentum that can result from achieving initial successes.

FINDING 9

New partnerships with regional planning and economic development organizations can help small and rural communities address USTfield barriers.

Small communities or localities in rural areas generally face very difficult challenges in building local capacity and expertise to handle USTfield issues. One approach could be for these localities to partner with regional planning and economic development councils, which are established in most areas across the United States. These regional councils can provide funding and assistance for planning and projects. They may be able to provide a template for USTfields revitalization that allows communities to learn from others in their region and to avoid reinventing the process from scratch. A community seeking to create a partnership with a regional development council should check with its state economic development office, or contact the National Association of Development Organizations at <http://www.nado.org>.

RURAL ILLINOIS — CAPACITY ISSUES AFFECTING THE BROWNFIELDS/UST CONNECTION

Illinois has begun to actively address a situation that many other states have recognized — that brownfields are not confined to urban areas, and that contaminated UST sites in small towns and rural areas pose a significant local economic development challenge. In fact, a recent Illinois EPA survey of the state's municipalities identified gas stations as the most predominant type of vacant or abandoned property in their communities (reported by nearly 71 percent of responding mayors). They also noted that a "huge need" exists for funds to pay for tank removal and cleanup.

Providing Resources and Incentives for USTfields

Availability of different types of resources and incentives plays a role in determining whether or not USTfields redevelopment projects are undertaken. As the UST project case studies demonstrated many USTfield sites are at a competitive disadvantage. The costs of site testing, remediation planning, and actual cleanup (not to mention increased project transaction costs related to contamination) can tip development choices towards properties that do not have to bear such costs. A major objective of the USTfield pilot initiative is to address these concerns through deployment of incentives such as grants, loans or loan guarantees, and technical assistance services, that can offset UST expenses and promote investment at UST sites.

Every developer carries out some sort of analysis of both risks and strategies when thinking about taking on an USTfield site, and evaluates the role that incentives might play in making the project more feasible. Again, the bottom line on contaminated properties is that these are real estate projects that have to address an environmental problem, so they need to meet basic financing criteria in spite of it. Adequate resources are needed to make any project happen, USTfield or not. Therefore, the public sector often must step up to the plate to kick off such projects, and reduce the risk to a level that the private sector will accept.

The challenge is dealing with these financing gaps and situations that make USTfield sites economically uncompetitive, at least initially, and pulling together the technical and financial resources that can help them take hold so they can realize the full competitive advantage of their location and situation. Lack of adequate and affordable financing is the most significant barrier to reusing contaminated sites. Site remediation and related preparation costs put substantial pressure on the bottom line. Developers often have trouble putting a complete financing package together for an UST project, especially the capital needed for three specific activities — (1) resources to pay for the early stage site assessment, to determine exactly what level of contamination needs to be addressed; (2) money for defining a site remediation plan — which an owner has to have in place to take the site through a state brownfield VCP to get some finality on liability concerns, or to be able to use institutional controls; and (3) funding to carry out the actual cleanup itself.

In many places, USTfields are at a competitive disadvantage due to contamination costs.

The USTfield challenge will clearly require the allocation of substantial funds and other resources by the public and private sectors. But the investment is certain to pay off for American communities. The most recent incentive, up to $50 million for petroleum site cleanup earmarked in the Brownfields Revitalization Act, can be leveraged with a range of creative private and public financing strategies. These resources can be the key to unlocking enormous economic potential, which has already begun in the ten USTfield pilot projects now underway.

FINDING 10

USTfield revitalization requires localities to leverage assessment, cleanup, and redevelopment resources from various federal, state, local and/or private sector sources.

Communities must be able to offer and package various types of resources from different sources to meet the specific financing needs of individual projects — including site assessment and cleanup, marketing, and other reuse-related activities. Local governments often need support from other levels of government — notably the states and federal agencies — to be able to offer these incentives. Many developers are seeking "shovel ready" sites that have already been tested for and cleaned of contamination, activities that usually can not be done without public-sector resources.

In addition, local officials should consider tax incentives that can be used to make sites more attractive to prospective developers; these, too, may be packaged from programs already available and adaptable from different levels of government. Local governments can help package local, state, and focused initiatives such as tax forgiveness linked to investment in contaminated properties; corporate or personal income tax benefits for job-creating redevelopment activities; abatements or rebates tied to cleanup expenditures; and direct development dollars targeted to distressed locations, which can be used to spark private investment in contaminated facilities.

FINDING 11

State programs can provide a variety of direct and indirect funding instruments for USTfields revitalization.

States have developed dozens of financing programs targeted to contaminated sites, most of which focus on brownfields. These include tax credits, abatements, and other tax incentives, which help with a project's cash flow by allowing revenue to be used for site redevelopment purposes rather than for tax payments. This, in turn, can help a project's financial look in the eye of a lender. Tax initiatives historically have been used to channel capital investment and promote economic development, and targeting to contamination impacted sites is a natural evolution of this type of program tool. Most of these are targeted to offset cleanup costs.

States also offer financial assistance programs that can be targeted directly to promote reuse of various types of contaminated sites. They meet several objectives: helping to finance specific parts of the project, such as site preparation; increasing the lender's comfort with guarantees to limit the risk of potential losses; or easing the borrower's cash flow by plugging certain capital holes or offsetting the extra up-front costs of site cleanup.

In short, states are carrying out dozens of different and successful financial assistance approaches to meet the common goal of promoting brownfield reuse, which should be further expanded into the USTfields area.

Another issue that may affect the way states fund USTfields revitalization is the shift in many states from the direct public funding of UST cleanups, to an approach that focuses on promoting private insurance as the source of funding and risk management. According to information compiled by the Vermont Department of Environmental Conservation, as many as a dozen state LUST

Financial Assurance programs will be making a transition to a private insurance focus within a few years.

FINDING 12

EPA can strengthen USTfield reuse approaches by promoting the leveraging of other federal agency resources, but USTfield advocates must be proactive about pursuing these resources.

For decades, federal economic development and finance mechanisms have been used to stimulate economic activity in certain geographic areas or industries, or under certain types of situations, or to nudge private capital markets when they chose not to participate. USTfield projects represent a logical extension of the mission of many of the programs that federal agencies currently operate. Federal programs could better support USTfield reuse simply by taking a fresh look at what program administrators view as eligible activities and how they deliver their financial and technical assistance services.

In terms of federal programs, several pilots — notably New Jersey and California — have suggested that it will be important to bring various other federal program resources to bear on UST site projects. Programs targeted to distressed areas or capital market imperfections have the potential to play a key role in UST site reuse. These resources could include, for example, HUD economic development funds and housing assistance, Economic Development Administration planning, public works, and infrastructure grants, Department of Transportation funds for site cleanup associated with transportation improvement projects, Small Business Administration loans and technical assistance, Federal Housing Finance Board financial support instruments for housing and community development projects, Army Corps of Engineers cleanup expertise in ecosystem restoration projects, Appalachian Regional Commission financial assistance for economic development projects, Department of Interior grants for urban park improvement and creation, U.S. Forest Service grants and assistance for community forestry projects on contaminated properties, clean water and

drinking water State Revolving Loan Fund loans for cleanup projects that protect water quality, or EPA Supplemental Environmental Project (SEP) resources created through enforcement agreements with private parties who have a responsibility to correct violations of environmental law. The list of federal resources that could be creatively applied to USTfields goes on. For additional information, see "Guide to Federal Programs for Brownfields" at www.nemw.org.

For example, New Hampshire has suggested that HUD should define, encourage, and publicize the ways in which cities could use their block grant program and other HUD resources to do things like finance tank site cleanup and redevelopment, or capitalize a local loan fund for gas station revitalization in distressed areas. These are activities that would fit within the basic mission of HUD's block grant and Section 108 loan guarantee programs. South Carolina noted that it has had success with SEPs, negotiated with federal EPA, with violators using their resources to abate and close tank systems for parties without the resources of their own to do so.

Nearly two dozen federal programs are well-suited to support USTfield projects.

Making the timing of federal participation work may be a real challenge. Although nearly two dozen federal programs are well-suited to support complementary UST project needs, these programs have very different timetables and requirements, which complicates their tandem use. Moreover, small cities are stymied by lack of easy access to some types of federal resources because of basic capacity issues. More outreach efforts would be helpful in making these operational links work. At the same time, it is up to local communities pursuing UST revitalization efforts to be proactive in fitting federal resources to local priorities.

FINDING 13

State governments need to target their own economic and community development programs and broaden their eligibility criteria to support USTfield projects.

As indicated in Finding 11, more than half the states have developed funding programs that can address the unique financing challenges facing contaminated sites. Virtually all states offer a panoply of programs designed to foster economic and community development. Few of them carry restrictions that would limit their applicability to USTfield sites, as long as the UST-related project could meet the program's basic eligibility criteria. Such criteria may range from reuse of a distressed site to job creation impacts to type of intended new use, such as a small business or manufacturing facility.

From a programmatic standpoint, state financial issues revolve around the flexibility in funding programs and eligible projects — and several pilot communities have noted that creative use of existing program resources will be critical to the broader scale success of the USTfield effort. At this stage, it is clear

that UST site project financing, like brownfields, will play out as a patchwork that takes considerable time and effort to put together. Initial projects in pilot cities like Chicago, Trenton, and Kansas City bear this out; in those places, specific redevelopments involved half a dozen or more public and private funding sources. States need to play a pro-active role in helping to leverage resources, as very few communities or organizations have the ability to cost effectively package such varied resources together in this way.

FINDING 14

The federal government needs to increase funding for state and local USTfields efforts through full funding of the Brownfields Revitalization Act, increased use of the Federal LUST Trust Fund, and direct USTfield grants to a variety of local, state, and regional entities.

As explained above, meeting the USTfield challenge will require significant resources, but the investment should pay off for American communities. The new federal Brownfields Revitalization Act specifies that 25 percent of any funding appropriated for brownfield programs, up to $50 million, is to be devoted to sites with petroleum contamination. This is the first time that UST sites have been so recognized, and presents an excellent opportunity. Although these funds have been authorized by law, Congress must still decide whether to appropriate monies toward this community need.

Given the magnitude of the UST situation that state and local governments have identified, full funding of programs authorized by the federal Brownfields Revitalization Act will meet a critical local need, and increase the number of successful UST site redevelopments.

Moreover, these funds can be used to provide direct grants to communities and other entities to meet the USTfields challenge. Initially, EPA's USTfield initiative has been designed to direct grants to states, working in partnership with specific local communities. This state-centered structure was appropriate, given the central role of state programs in UST cleanup, and because the source of the USTfield grants has been the federal LUST program which, by law, must be directed to states.

Now, however, with the passage of the Brownfields Revitalization Act and the potential for $50 million each year in grants for petroleum contaminated sites, EPA should consider directing grants to a variety of local and regional government entities, and non-profit organizations, as well as states, as the legislation allows. The experience of many of the nearly 400 local entities that have received EPA brownfields assessment pilot grants — and used them to leverage a variety of other resources — shows the value of direct grants. Likewise, regional planning and economic development councils, and other regional entities, may be able to support a variety of USTfield activities in areas with small and rural communities — places that may not have the capacity to undertake the initiatives alone. In any case, direct grants to local governments and regional entities should include criteria ensuring that the partnership between communities and state UST programs continues and is strengthened.

In addition to grants for USTfield assessment and cleanup, EPA should allow some portion of state and local USTfields funding to be used to build state and local capacity to conduct USTfields revitalization efforts, which is permitted

under the Brownfields Revitalization Act. Many states and localities have noted the need for additional staff resources to support necessary USTfield technical assistance, outreach and project coordination activities.

The federal government should also consider the expanded use of federal LUST Trust Fund resources to support the development of state capacity and state staffing to meet the emerging USTfields revitalization challenge. EPA can and should expand the use of the Trust Fund for USTfields revitalization, while continuing to meets its obligations to ensure cost recovery and to focus on high priority sites. At the same time, these concerns should be balanced against the environmental and socio-economic benefits of USTfield reuse.

EPA should provide direct USTfield grants to localities.

Finally, EPA should use the flexibility provided by the Brownfields Revitalization Act to ensure that different types of federal funds can be leveraged for the USTfields challenge. Specifically, EPA should use its statutory flexibility to ensure that USTfields grants provided to communities can be used at sites where federal LUST Trust Fund monies have also been expended, if such USTfields revitalization will protect the public health and local economies, as mandated by the Brownfields Revitalization Act. For example, it would be inconsistent with the spirit of the new law to deny USTfields grants to those progressive states who have been very proactive in using Trust Fund resources to remove all leaking tanks throughout the state.

Overcoming Regulatory and Legal Challenges

As the success of USTfields revitalization depends on taking an economic development approach to an environmental problem, it cannot be dominated by a regulatory perspective. Instead, EPA and the states need to explore how they can tailor regulatory tools and incentives toward site revitalization and reuse goals, and all partners need to figure out ways to overcome various legal challenges that affect the potential for site reuse. This may require new regulatory policies that address emerging local USTfield needs. The passage of the Brownfields Revitalization Act and its new resources for USTfields provide an excellent opportunity to promote needed regulatory innovation.

Localities have identified the need for flexibility under cost recovery requirements to put USTfields sites on a revitalization track.

FINDING 15

EPA is seeking to help localities and states understand that state UST programs have substantial discretion with respect to the implementation of federal cost recovery requirements. This EPA education effort is very important, because several USTfield pilots have voiced concerns that federal cost recovery requirements have been a barrier to UST revitalization.

EPA has promulgated policies relating to USTs and the use of the LUST Trust Fund that specify that, before federal funding can be directed to the cleanup of an abandoned tank, an effort must be made to recover these costs from prior owners of the site or other responsible parties who caused the pollution. While localities and states agree that the "polluter pays first" perspective is proper in concept, the requirement can be difficult to implement in practice and may thwart promising cleanup and redevelopment opportunities.

In many cases, particularly at "mom-and-pop" owned sites, the responsible parties may be difficult to find and more difficult to bring into the process. Title searches and lengthy efforts to find responsible owners have hindered many communities. Uncertainty about the federal cost recovery requirement at the state and local level has chilled efforts to direct LUST funding toward sites where cost recovery efforts may be futile or too time consuming to meet the realities of the redevelopment process and local goals for reuse. This barrier is serious when a private, innocent party wishes to redevelop the site, and must proceed on a development time line that reflects the need for certainty and quick regulatory decisions. This may result in an opportunity lost to leverage a variety of public and private funds together if the process can get underway.

Many states and localities believe that federal UST resources should be able to "prime the pump" at USTfield revitalization sites, without being unnecessarily hindered by cost recovery constraints. Moreover, this approach does not preclude state and federal enforcement authorities from proceeding with cost recovery or enforcement actions against responsible parties on a concurrent track.

The cost recovery problem is even hindering the new EPA USTfields initiative, despite its vision of site revitalization. Several of the initial 10 USTfield pilots stated that that they were unaware that the EPA pilot grant carried with it the same requirements as other LUST Trust Fund monies with respect to cost recovery. Some, such as Oregon, had not originally identified prospective pilot

projects with the expectation that they would have to recover their USTfield investment. The original scope of the USTfields pilot program, as envisioned by EPA, assumed that pilot communities would focus on abandoned facilities and emphasize community revitalization as the goal of cleanups. However, for several of the pilot states, tank sites with viable owners or operators proved to be the best targets for an initiative with reuse as its end objective. Accordingly, the issue of cost recovery has been more prominent than presumed at the outset of the initiative. The future of the EPA USTfields initiative requires EPA to carefully consider this issue.

"EPA will support flexible cost recovery decisions and approaches by the states."

Cliff Rothenstein
Director, EPA Office of Underground Storage Tanks

The approach to cost recovery varies across the pilot states, and nationally. In its cost recovery policies relating to USTs and the LUST Trust Fund, EPA has noted that: **"States will implement the cost recovery program, have considerable discretion in operating it, and benefit directly from their successful recoveries."** Moreover, the Director of the EPA Office of Underground Storage Tanks, Cliff Rothenstein, has stated that EPA will support flexible cost recovery decisions and approaches by the states, when these approaches can more quickly protect public health and lead to the benefits of redevelopment.

Nevertheless, concerns about federal policies remain, and some state agencies take a very strict view of cost recovery, which tends to hamper their flexibility when pursuing new UST site users and uses. As such, some communities' initial strategy of pursuing UST site cleanups with greater community benefits bumped up against the realities of cost recovery. Several of the pilots viewed the need to cost recover, or fully establish an inability to pay, as creating a lengthy up-front process before work can begin, which can deter new private users from taking on these sites.

Other pilots, such as New Hampshire, find that cost recovery is working fairly well. State officials there can use discretion when sites have a negative value, such as the typical gas station that cannot economically manage the average $70,000 cost for assessment and remediation in that state. New Jersey does not

COST RECOVERY IN ILLINOIS – A PRACTICAL APPROACH THAT RECOGNIZES THE REALITIES OF REUSE

Illinois, like all states, is grappling with the issue of cost recovery from responsible site owners, as it works to define and carry out its USTfield pilot initiative. In Illinois, the level of cost recovery at any individual site is determined by weighing the resources necessary to recover the claim against the amount that might be recovered, and how successful that recovery effort is likely to be. While the state tries to recover costs at any site involving use of the Illinois LUST Trust Fund – for example, conducting a search for responsible parties (RPs) and demanding that they make payment if they are found – the state has also defined "high" and "low" priorities to guide its cost recovery efforts in a way that promotes reuse.

HIGH PRIORITY is given to sites with solvent RPs who simply refuse to comply with orders. In the case of Chicago's Abandoned Service Station Management program, this may involve the city's removal of tanks, using its enforcement authority and the placement of a "cleanup lien" on the property. In addition, owners or operators who do not comply with financial responsibility requirements are vigorously pursued. Sometimes – as in the case of the five sites Chicago has identified as part of the UST pilot initiative – the city forecloses on tax or cleanup liens, and takes title to the property.

LOW PRIORITY is given to sites with insolvent RPs, or those in financial difficulties that limit their ability to pay. In the case of the latter, the state may work to get a lesser amount that the RP can afford. In addition, if the state decides that an owner/operator cannot be identified, or that cost recovery is simply impractical, Illinois may simply close the site out itself, using public funds.

By introducing a dose of development reality to UST contaminated site situations, Illinois is enhancing their reuse potential.

see cost recovery as an impediment, because most of the site work there is done by the dischargers or developers using private funds. Missouri views cost recovery as providing a "useful filter" for sites with an obvious responsible party who can undertake cleanup.

Chicago has taken an innovative approach to cost recovery. Site owners without the money to proceed can get an advance from the city and set up a third-party escrow account, reimbursed later through cost recovery or through value created by the redevelopment, after cleanup and reuse are completed. This flexible approach has sparked an early track record of success in Chicago, for quickly turning around abandoned USTfield sites into productive community places.

To address these variations and encourage greater local initiative, EPA should consider working with states and communities to articulate additional guidance that confirms state flexibility on the issue of cost recovery, indicating circumstances that warrant flexibility, encouraging consideration of greater socio-economic value created by USTfield redevelopment, and providing examples of successful cost recovery approaches.

Local governments are concerned that they could face legal liability if they acquire sites to promote USTfields revitalization.

FINDING 16

Local governments view the problem of orphan UST sites as one of their top challenges, and as a situation that needs localities to be proactive. However, many communities have voiced concern that they could subject themselves to

potential threats of liability and enforcement action if they acquire title to properties that contain contamination, even if they are not responsible for the pollution and are taking these actions to support revitalization objectives.

Since most UST liability issues derive from state regulatory programs, the states must take the lead in clarifying liability issues and providing information and outreach to local governments who seek to revitalize USTfield sites. However, the potential for federal liability still lingers, even though, as indicated in Finding 3, the Brownfields Revitalization Act provides states with lead authority on brownfields liability. EPA and the states could address this uncertainty through regulatory guidance explaining how such potential liability can be avoided by communities that take a proactive role in protecting community health and the environment by acquiring and revitalizing USTfields. Federal and state cost recovery policies could be clarified to provide local governments with comfort that their proactive efforts to revitalize USTfields will not threaten legal liability.

Other liability issues may arise when local governments take title to sites with mixed wastes, that is, contamination by both petroleum and other hazardous substances. For instance, the Superfund law provides local governments with a defense against liability when the locality "involuntarily" acquires a site in its capacity as a sovereign, such as through tax foreclosure or eminent domain. Likewise, the new Brownfields Revitalization Act provides protections for innocent landowners and prospective purchasers at brownfields sites, but not necessarily petroleum contaminated sites. EPA could issue guidance on the application of these legal protections at USTfield sites with mixed wastes, and provide comfort to local governments that they will not be the brunt of enforcement at these properties.

Similarly, EPA could help local governments address site access difficulties that affect proper due diligence efforts with respect to the site's contamination. This is particularly true at orphan sites where the owner may be unreachable for a variety of reasons, leaving the city with equally unattractive options — either leaving the site abandoned, or risking liability through acquisition without a site assessment. Finally, localities could benefit from guidance, from both states and EPA, on how local governments can use state VCPs to address and avoid these liability concerns. For example, New Hampshire's petroleum cleanup statute exempts local governments from environmental liability at tax deeded properties, if the local government makes a good faith effort to market the property.

FINDING 17

MTBE contamination is a significant issue in many areas, and localities and states need support in addressing MTBE as part of an USTfield revitalization strategy.

A further disincentive to USTfields revitalization is the specter of cost and liability associated with MTBE contamination. Methyl tertiary butyl ether (MTBE) is a fuel additive that has been used with increasing frequency in recent years as a method of reducing harmful emissions of air pollutants from vehicles and to meet Clean Air Act regulatory requirements. However, this chemical used for air pollution reduction can pose a serious threat to water supplies and public health. MTBE most often enters the water through gasoline spills or tank leaks. It is especially troublesome in that MTBE migrates more rapidly through the soil, and often is transported deeper below the surface compared to other petroleum products. Even small amounts can contaminate groundwater to the point of making it undrinkable. California officials noted that the problem is more centralized on the west coast because of supply sources; in their case, one MTBE problem meant that half of Santa Monica's water supply was wiped out.

A further disincentive to USTfields revitalization is the specter of cost and liability associated with MTBE contamination.

Within the ten pilot states, MTBE has various impacts. In some states, like New Hampshire, it affects a high level of sites. The New Hampshire legislature has recently passed a law establishing a fund specifically designated for MTBE situations without a viable responsible party. In others, like Utah, it is not a major issue and no wells have been shut down because of MTBE.

EPA has been working actively to address MTBE impacts on drinking water supplies. EPA's federal UST regulations are helping prevent contamination of water supplies from UST releases by working with states to improve the compliance rate with leak detection requirements and regulations that require all substandard UST's be upgraded (with spill, overfill, and corrosion protection), replaced, or properly closed. EPA is also undertaking a major multi-year effort with states to increase UST owners' and operators' compliance rates through technical assistance, inspections, and enforcement.

In addition, EPA is considering the issuance of a secondary drinking water standard for MTBE under the Safe Drinking Water Act, based on taste and odor. This taste and odor standard will serve as a guideline that states may adopt. In December 1997, EPA issued a Drinking Water Advisory that states concentrations of MTBE in the range of 20 to 40 parts per billion of water or below will probably not cause unpleasant taste and odor for most people, recognizing that human sensitivity to taste and odor varies widely. The advisory is a guidance document that recommends keeping concentrations below that range. EPA is continuing to study both the potential health effects and the occurrence of MTBE, and it is on a list of contaminants for which EPA is considering setting additional health standards. As a means of gathering occurrence information, EPA began in 2001 to require all large drinking water systems and a representative sample of small systems to monitor and report the presence of MTBE. For more information on MTBE activities at EPA's Office of Underground Storage Tanks and Office of Water, see www.epa.gov/mtbe.

Enhancing Intergovernmental Cooperation

The EPA USTfields pilot initiative has made a commendable start in terms of intergovernmental partnerships among local agencies, state UST officials, and the federal government. This intergovernmental cooperation should be continued and enhanced as the UST program grows.

FINDING 18

States, localities, and EPA can build a foundation for future USTfield revitalization efforts by measuring, tracking, and promoting the results of USTfield efforts.

All levels of government should work individually and together to measure, track and promote the benefits of UST revitalization. Indeed, moving forward on USTfields revitalization through new funding, resources, and partnerships will likely be impossible if the benefits of these efforts are not clearly measured and used to establish a solid case for why USTfield reuse matters, and what benefits USTfield reuse can bring to communities. The value of this approach can be seen in the EPA brownfields effort, which has worked with localities and other parties for years to quantify and measure results. In fact, these tracked benefits proved important in the debate over the authorization of new brownfields legislation and also demonstrated to a broader range of communities and private parties the value of brownfields initiatives.

USTfield revitalization benefits that could be measured and tracked include: number of sites assessed, remediated, or returned to productive use; amount of public and private dollars leveraged; number of jobs created; expansion of the tax base attributable to reused USTfield sites; and other factors. Although the tracking of such benefits may take time and resources, the effort is likely to pay off.

The tracking of USTfield results will require intergovernmental cooperation. EPA could work with USTfield pilot states to establish some guidelines on tracking USTfield results. EPA could establish a uniform set of measurement criteria and common measurement methods, and even standard measurement reporting forms, so that results can be assessed across state and community lines. This intergovernmental effort will need to balance the need for uniformity against the need for local creativity and individuality in quantifying results, and against the reporting burden that localities may face. However, it would be unfortunate if USTfield initiatives proceed and, after a time, no one can define the real results and benefits of the efforts, or if such results cannot be compiled or compared.

FINDING 19

EPA Regional offices must play a critical role in fostering USTfields initiatives, providing technical assistance and information to state and local efforts, connecting USTs with broader brownfields resources, and encouraging the replication of successful approaches.

EPA's ability to implement 50 USTfield pilots and the petroleum provision authorized by the Brownfields Revitalization Act will require an effective infrastructure of support for state and local efforts. This should mean the establishment of capacity and leadership at the 10 EPA regional offices.

An early reason for success in the EPA brownfields initiative was the naming of regional brownfields coordinators. They have taken the lead in supporting

brownfields pilot communities, providing technical assistance, identifying resources, building cooperation with stakeholders within the region, acting as liaisons to EPA headquarters, and spreading the word on successful approaches. EPA should likewise establish a Regional USTfield Coordinator in each of its ten offices to provide this package of support to USTfield pilots and other communities pursuing USTfield revitalization. These USTfield Coordinators could be part of a "Regional Reuse Team" formed in each EPA regional office to coordinate efforts of brownfields, USTfields, and other cleanup and land revitalization officials.

EPA should establish a Regional USTfields Coordinator in each of its ten regional offices.

Regional USTfield Coordinators could do much to establish an infrastructure that would lead to future success. For example, regional coordinators can conduct regular conference calls and in-person meetings among the pilots in the particular region to share ideas and consider solutions to common barriers. USTfield coordinators would also take the lead in spreading USTfield tools beyond EPA pilot communities. Regional coordinators could also confer regularly with their counterparts throughout the ten EPA regions to transfer information and successful approaches. The Office of Underground Storage Tanks at EPA headquarters should continue to support these regional outreach efforts.

Reaching Out to the Private Sector and Community Groups

Partnerships based on a solid outreach effort are vital to a successful USTfields effort because they foster communication and the building of cooperation and trust between relevant stakeholders. As can be seen from the diverse projects already underway as part of the USTfield pilot initiative, these efforts will involve a variety of stakeholders who have specific interests and capabilities which can contribute to USTfield achievements. Depending on the specific project, these may include bankers, elected officials, investors, developers, private business owners, lawyers, environmental professionals, local agency staff and private practitioners in several areas (such as economic development, engineering, or technology services), insurance providers, state and federal government officials, community representatives, even the major oil companies — basically, anyone with an interest in reviving a distressed area. In addition, groups of these stakeholders — such as community development organizations, chambers of commerce, or business councils — can contribute to the process.

Public-private partnerships provide the mechanism to identify and apply available resources to meet the needs of USTfield redevelopment efforts, either broadly or on a site specific basis. Therefore, initiating such partnerships as early in the process as possible can contribute to the achievement of other critical components and provide the framework that addresses the barriers associated with implementing the local USTfields initiative. Most important, these partnerships will ensure that the interests and concerns of the involved stakeholders will be identified and ultimately met. Therefore, they must be supported at the local, state and federal levels.

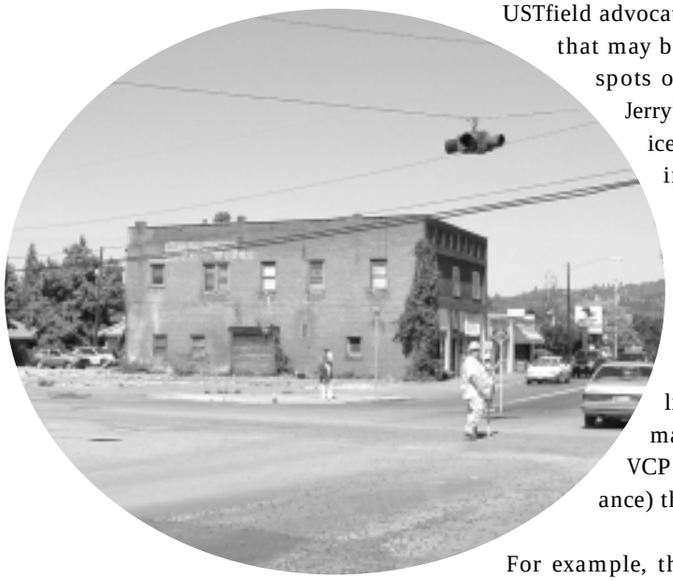
If the role of public funding is to prime the USTfields pump, private sector resources are the way to fill the tank, and community support is the lubrication to accomplish site revitalization. Just as the EPA brownfields program has

found that, for every $1 of public funds invested, more than $2.50 in private sector financing is leveraged, USTfields communities need to seek partnerships that can produce similar outcomes with private sector leveraging and community support.

FINDING 20

The potential for USTfield reuse will be strengthened if the public sector forms partnerships with, and provides outreach to, potential redevelopers and reusers of sites.

Largely because of the newness of the effort, to date pilots have done very little tracking of the private sector role in UST site reuse, in terms of most suitable uses, best approaches to site marketing, and similar situations. Better tracking would allow states and cities to better shape their technical assistance and incentive offerings. Some states, like South Carolina, have tried to generate interest in UST sites by sending letters to county development offices, commercial realtors, and other potential partners.



USTfield advocates should also seek to work with particular companies that may be interested in locating their businesses on the prime spots offered by abandoned USTfields. For example, Ben & Jerry's Homemade, Inc., the Vermont-based manufacturer of ice cream, frozen yogurt and sorbet, was founded in 1978 in a renovated gas station in Burlington, Vermont. Since then, many restaurants, pharmacies, and other retail business have been attracted to USTfield sites.

Private parties need to be enlightened about the economic benefits of cleaning and reusing these sites. They also need information on the proven ways to overcome liability and other barriers to successfully redevelop and market tank sites, and about the public incentives (such as VCP releases) and private tools (such as environmental insurance) that can help tie these projects together.

For example, the Oregon Department of Environmental Quality is spurring reuse of UST sites by promoting various tools such as prospective purchaser agreements, various types of institutional controls, and concurrent cleanup and redevelopment approaches. New Hampshire has attracted private users to some of its UST sites through its extensive state program coverage. State officials have noted that "if we can make a site eligible for reimbursement, then it becomes like any other property" except for some cash flow issues which can be managed. New Jersey builds on its successful brownfields approach when working with private players at UST sites, combining tools with private market forces and encouraging the private sector by publicizing success stories.

FINDING 21

More USTfield sites will be cleaned and reused if the public sector forms partnerships with, and provides outreach to, financiers and insurers of USTfields projects.

Clearly, as the pilot communities have recognized, the public sector cannot do the whole job itself; private investment must be attracted to these contaminated tank sites. A key role of the USTfields pilot, therefore, is to set the stage that

invites private participation in these projects. This can best be done as part of a partnership effort that helps lenders and insurers address risk in various ways — by quantifying it, managing it, or avoiding it.

Private investment must be attracted to these contaminated tank sites.

New types of indirect financing instruments are becoming more viable and visible, and applicable to contaminated sites. These include a new wave of insurance mechanisms that aim to bring certainty to financing risks — and can make capital more available for project activities. Insurance can prove helpful in a couple of ways. First, deals can close more easily because unexpected cleanup costs encountered during the development process will not add to the developer's anticipated costs. Second, deals can close more easily because insurance can cover the possibility that the costs of additional contamination will not affect the site reuser's ability to pay off mortgages or other notes.

As the USTfield issues become more prominent in communities across America, there are excellent opportunities for the private insurance sector to partner with EPA, state UST officials, local redevelopment agencies, and the real estate industry to identify insurance products that can be tailored to particular UST needs. It should also be noted that the grant funds available under the Brownfields Revitalization Act can now be used for the purchase of private insurance to cover costs related to contaminated sites, including USTfields.

In addition, general economic development partnership tools clearly have applicability in USTfield situations. The public sector can encourage the private sector through, for example, helping with title clearance; linking site owners to federal and state financing programs and other incentives; helping site owners monitor institutional or engineering controls and land covenants; and helping to separate the environmental risk from the economic value of the property, through mechanisms such as land leases, indemnities, or environmental insurance. It may involve linking site owners to private lenders, such as Bank of America, who have been responsive to projects saddled with contamination issues. Incentives of this type, targeted and responsive to USTfield situations, can meet more specialized local needs and plug the holes that more traditional public program resources cannot fill.

Partnerships with major oil companies and petroleum marketers can grease the skids for site revitalization.

FINDING 22

Many states have urged that the UST pilot program make a special effort to reach out to the major oil companies, to encourage them to contribute to the success of the initiative. Some states have also had success in working with smaller petroleum marketers, who may own only 10 to 15 or so sites, to revitalize sites where the marketers seek to sell off.

Often, enforcement against responsible parties has been the only way to get their attention. The emerging revitalization approach to USTfields may provide new opportunities for collaborative approaches. Some oil companies have agreed to Supplemental Environmental Projects, under which the company will fund a wide range of site revitalization efforts as part of an overall enforcement settlement. Or, oil companies can help states and localities navigate the real estate and redevelopment issues at UST sites, using their own staff with experience in these areas. New Hampshire suggested that the big oil companies

inventory all of their former stations and commit to work through the UST program to devise a program to support redevelopment of station sites that they are no longer interested in operating. This can help set the stage for a more collaborative effort which might be more productive in the long-term.

Potential clearly exists for multi-site agreements with players from the oil industry, which reduce the transaction costs of negotiating cleanups on a site-by-site basis. The successful implementation of this type of agreement in places like Pennsylvania emphasizes that such private sector partnering efforts are vital to leverage the resources required to help meet current and future cleanup needs.

FINDING 23

Localities can enhance their overall USTfield reuse strategies by promoting proactive community involvement processes for USTfield projects.

Cities benefit in the long term from fostering a visioning process within their communities — one which helps all involved and affected parties imagine both the possibilities and the obstacles involved in making the jurisdiction's USTfields effort successful. If such a vision can be defined, it can serve as the foundation from which a base of broad support can be built; this in turn fosters commitments of the key parties who are needed to advance a tank reuse program.

When looking at site reuse in general, stakeholder involvement often becomes synonymous with obstacles and delays in many places. Often, the private sector may only pay lip service to the idea and community organizations may approach the process of stakeholder involvement with great cynicism. This attitude is only exacerbated at small sites like the typical UST situation, where tighter potential profit margins provide little up-front economic advantage to negotiate anyway.

Therefore, identifying the appropriate community stakeholders and including them early in the reuse process is critical. Communities have learned through the brownfield pilot initiative that meaningful public participation is a critical factor in program success that helps move site cleanup and redevelopment plans forward. A comparable lesson can be drawn from the initial USTfield experience. Stakeholder education about resources and technical advice played a key role in South Carolina's initial USTfield pilot activities. In most of the pilot areas, cities that have jumped this hurdle are starting to see results. Discussions with USTfield pilot cities have pointed to three community involvement elements that can enhance the potential for site reuse success.

First, resources are needed to develop and carry out understandable, credible community information and outreach programs, and sincerely solicit community input into the reuse process. This is a need that will become more critical as new technologies and institutional control approaches make site cleanup more cost-effective. Second, proactive strategies are needed to bring concerns and visions to light, since it cannot be assumed that all stakeholder needs and wants are easily discovered. Kansas City and Missouri hope that the USTfields pilot will lead to a

model for starting dialog with communities; in terms of finding out issues and determining how people can move forward to solve them in a more comprehensive process that uses tank reuse opportunities to connect urban revitalization and environmental safety. Third, public technical and financial assistance resources can be used as effective carrots for both the public and private sector to become more actively involved in the stakeholder process.

Overall, community involvement is often the starting point from which good reuse strategies can be launched. Substantive, meaningful, and early participation can drive USTfield reuse and serve as a key element that sustains it over time.

ANDERSON — UST CLEANUP KEY TO DOWNTOWN REVIVAL

The City of Anderson has taken great strides in restoring its core downtown area, a district distinguished by historic buildings and professional offices. The City has established a Tax Increment Finance (TIF) district to generate revenue to support renewal, and obtained a U.S. EPA Brownfields Revolving Loan Fund grant and Brownfields Assessment Demonstration Pilot award to address the area's brownfield work. Recently, Anderson and the State of South Carolina have obtained an EPA USTfield grant to identify potential health and environmental threats at seven downtown sites.

According to Linda Pruitt McConnell, the City's Municipal Development Director, the chief obstacle to USTfield redevelopment has been overcoming the perception that the sites are either contaminated or simply too complicated to deal with. The City has an opportunity to show conclusively the condition of the properties — which are sometimes clean or only mildly contaminated — and offer assistance in cleaning them up. For several sites, Anderson has provided information, answered questions, and confirmed that contamination is not an issue or that tanks have already been removed. By resolving such uncertainties the City has helped redevelopment move forward.

Anderson has targeted seven sites for tank remediation and site reuse in the downtown area, including the Stitchery Building. The building occupies a potentially valuable site immediately adjacent to a new arts center and farmer's market and municipal parking facility. Many parties, including the county, are anxious to resolve contamination issues at the site so that the property can become part of Anderson's transformation. Five USTs, likely taken out of operation before 1974, occupy the site; four are empty and one may contain product. The City hopes to work with the property owner to address the tank issues, including assessment and removal, in order to increase the property's value and redevelopment potential. The City is coordinating its activities with the State.

For more information, contact Anderson's Municipal Development Director, Linda Pruitt McConnell at 864-231-2230.

"Downtown revitalization can not succeed when an abandoned gas station stands in the middle of your vision. We think that, with the partnership of South Carolina and EPA, we are going to reach the vision for a better Anderson."

Linda Pruitt McConnell
City of Anderson, Municipal Development Director

PART IV FILL 'ER UP & KEEP ON ROLLING

RECOMMENDATIONS ON STRENGTHENING THE NATIONAL USTFIELDS INITIATIVE

Prospects are excellent for USTfields revitalization across the nation. The President has signed new brownfields legislation that provides the opportunity for new funding for USTfields. EPA has launched an USTfields initiative in partnership with ten states and local governments, with 40 new pilot communities on the way. Lessons learned and success stories are emerging from state and local efforts.

At this point on the road to revitalization, USTfield leaders should fill 'er up with new resources, tune up the program with improved regulatory approaches, rev up stronger public-private partnerships, and keep on rolling. This final section of the report looks over the horizon and suggests action items that could enhance the future of the national USTfields initiative. Based on the lessons learned from the initial USTfields pilots and ongoing efforts across America, the Northeast-Midwest Institute and NALGEP recommend the following top ten action items:

USTfield Funding

ACTION 1 EPA should provide direct USTfield Revitalization Grants to a variety of local government, state, regional, and tribal entities.

ACTION 2 States should steer resources from the $1.91 billion in state funds now available for UST activities, as well as traditional state economic development tools and resources, toward an UST cleanup and redevelopment mission.

ACTION 3 EPA should clarify and publicize that the federal Brownfields Tax Incentive is available for use at USTfields.

Technical Assistance

ACTION 4 **EPA should establish a Regional USTfields Coordinator and a Regional Reuse Team in all ten EPA regional offices, to coordinate USTfield pilots, provide technical assistance, connect with broader brownfields resources, and promote collaboration.**

ACTION 5 **EPA should tailor the use of existing technical assistance tools to the USTfields challenge, including the Technical Assistance for Brownfields programs, and a new edition of the EPA's Technology Innovation Office's "Roadmap for Brownfields Technologies" manual.**

Regulatory Incentives

ACTION 6 **EPA should issue guidance to encourage state flexibility in cost recovery requirements for USTfields revitalization.**

ACTION 7 **EPA should issue guidance clarifying the application of Brownfield Revitalization Act provisions regarding liability and state cleanup program authority to USTfield sites.**

ACTION 8 **States should consider how the integration of UST, brownfields, and Voluntary Cleanup Program regulatory processes could streamline and promote USTfield revitalization.**

Intergovernmental Partnerships

ACTION 9 **EPA should allow states to direct Brownfields Revitalization Act funding for state VCPs toward USTfield program development.**

ACTION 10 **EPA should partner with states and localities to ensure that USTfield revitalization benefits are measured, tracked, and promoted.**

APPENDIX 1 USTFIELDS RESOURCES AND INFORMATION

Federal Resources

U.S. Environmental Protection Agency (EPA) Office of Underground Storage Tanks (OUST) - The OUST website is a comprehensive site on underground storage tanks that includes many resources and links to all regional and state UST/USTfield websites. Contact Information: 703-603-7164(p); http://www.epa.gov/oust/.

Occupational Safety and Health Administration (OSHA) — OSHA provides several guidance letters concerning USTs on its website. http://www.osha.gov/.

Organizations Working on UST/USTfields Issues

National Association of Local Government Environmental Professionals (NALGEP) — NALGEP is partnering with the Northeast-Midwest Institute to convene representatives of the initial 50 EPA USTfields pilots to identify critical barriers and develop strategies to overcome shared obstacles. Contact Information: 1350 New York Avenue, NW, Suite 1100, Washington, DC 20005-4798; 202-638-6254 (p); 202-393-2866 (f); http://www.nalgep.org.

Northeast-Midwest Institute — Northeast-Midwest is partnering with NALGEP to coordinate the 50 EPA USTfields pilots. Contact Information: 218 D Street SE, Washington, DC 20003; 202-544-5200 (p); 202-544-0043 (f); http://www.nemw.org.

Boulder Area Sustainability Information Network (BASIN) — BASIN maintains a website with an excellent overview of LUSTs at http://bcn.boulder.co.us/basin/waterworks/lust.html.

Local Government Environmental Assistance Network (LGEAN) — A service conducted by the International City/County Management Association (ICMA) that provides environmental management, planning, and regulatory information to local government elected and appointed officials, managers, and staff. Contact Information: 202-962-3622 (p); http://www.lgean.org/.

UST Associations

American Petroleum Institute (API): 1220 L Street, NW, Washington, DC 20005-4070; 202-682-8000(p); http://www.api.org/.

American Society for Testing and Materials (ASTM): 100 Barr Harbor Drive, PO Box C700, West Conshohocken, Pennsylvania, USA 19428-2959; 610-832-9585 (p); 610-832-9555; http://www.astm.org/.

Association for the Environmental Health of Soils (AEHS): 150 Fearing Street Amherst, MA 01002; 413-549-5170 (p); 413-549-0579 (f); http://www.aehs.com/.

Fiberglass Tank and Pipe Institute: 11150 South Wilcrest Dr., Suite 101, Houston, TX 77099-4343; 281-568-4100 (p); 281-568-4500 (f); http://www.fiberglasstankandpipe.com/.

NACE International (formerly National Association of Corrosion Engineers): 1440 South Creek Drive, Houston, Texas 77084-4906; 281-228-6200 (p); 281-228-6300 (f); http://www.nace.org/.

National Association of Convenience Stores (NACS): 1605 King Street, Alexandria, VA 22314; 703-684-3600 (p); 703-836-4564 (f); http://www.cstorecentral.com/.

Petroleum Equipment Institute (PEI): P. O. Box 2380, Tulsa, OK 74101-2380; 918-494-9696 (p); 918-491-9895 (f); http://www.peinet.org/.

Petroleum Marketers Association of America (PMAA): 1901 N. Fort Myer Drive, Suite 1200, Arlington, Virginia 22209-1604; 703-351-8000 (p); 703-351-9160 (f); http://www.pmaa.org/.

Service Station Dealers of America (SSDA): 9420 Annapolis Rd., Suite 307, Lanham, MD 20706; 301-577-4956 (p); 301-731-0039 (f); http://www.ssda-at.org/.

Steel Tank Institute (STI): 570 Oakwood Road, Lake Zurich, IL 60047; 847-438-8265 (p); 847-438-8766 (f); http://www.steeltank.com/.

Underwriters Laboratories (UL): http://www.ul.com/.

UST Newsletters

Association of State and Territorial Solid Waste Management Officials (ASTSWMO) — ASTSWMO has a tanks subcommittee and publishes a quarterly MTBE newsletter and other UST-related publications. Contact information: 444 North Capitol St., NW Suite 315, Washington, DC 20001; 202-624-5828 (p); 202-624-7875 (f); http://www.astswmo.org/.

New England Interstate Water Pollution Control Commission (NEIWPCC) — NEIWPCC has an underground storage tank/leaking underground storage tank (UST/LUST) working group and publishes the LUSTLine newsletter that focuses on LUST/UST issues. Contact information: New England Interstate Water

Pollution Control Commission, Boott Mills South, 100 Foot of John Street, Lowell, MA 01852; 978-323-7929 (p); 978-323-7919 (f); general email: mail@neiwpcc.org. To receive a complimentary copy of L.U.S.T.Line, send your mailing address to lustline@neiwpcc.org.

Underground Tank Technology Update (UTTU) — The UTTU bi-monthly newsletter is published by the University of Wisconsin and provides information on the latest UST and remediation information and technologies. To receive this free electronic newsletter, send an e-mail to Debbie Benell at the University of Wisconsin–Madison at benell@epd.engr.wisc.edu or call 800-462-0876.

MATRIX OF STATE USTFIELD PROGRAMS APPENDIX 2

Nashua, New Hampshire
EPA REGION 1

EPA Contact: Susan Hanamoto, 617 918 1219
State Contact: Gary Lynn, 603 271 8873
State UST website: http://www.des.state.nh.us/orcb/ustprog.htm
Information Source: Gary Lynn

Authorization/ General Information	Program is based on a series of statutes with different purposes: • RSA 146-A and C — oil remediation and UST statutes • RSA 147-F — the brownfields statute, which also applies to petroleum sites • RSA 485-C — groundwater protection provisions • RSA 146-D, E, F — authorize the three reimbursement funds (see below) New Hampshire maintains an online database for State sites and also has program/policy information online. Budget — $2.26 million for the two groups within the Division of Waste Management, Oil and Remediation Compliance Bureau have a combined budget; specific grants and specialty funds are separate from that budget total (see below). Staffing — 25 in the Division of Waste Management, Oil and Remediation Compliance Bureau, which is split into two groups: one does tank compliance, including tank upgrades and new installations; the other is the petroleum remediation section.
UST Trust Fund	Oil Pollution Control Fund is intended for emergencies, big oil spills, and is a "last resort fund". Three types of petroleum reimbursement funds are available: • MOST fund covers heating oil — $0.32 million annual budget (1.1 million balance in this fund) • FOD fund covers used oil — $3.1 million annual budget (2.4 million balance, 0.15 million in monthly fees) • ODD covers gasoline and motor fuels — $8.7 million annual budget (4.5 million balance in this fund, 1 million in monthly fees collected) All three funds historically maintain a surplus. In fact, the collection of the gasoline and motor fuels tax has been suspended several times. New Hampshire views all three components as working well; checks are cut within two months of claim filing. ODD has broad applicability, covers over 70% of all LUST sites, including historical releases. It will potentially cover any site with USTs present after 1986.
Tank Insurance Fund	No tank insurance fund.
MTBE Issues/Policy	New Hampshire is highly impacted, and MTBE affects a high percentage of sites; many public water supply wells contain MTBE (although not above drinking water standards). 70% of its population gets drinking water from groundwater. Several wells have been shut down in smaller community supply systems because of MTBE contamination. About 200 private wells are getting treatment for exceeding the MTBE standard. Statewide most of the UST sites show MTBE contamination and it is estimated that 15% of New Hampshire's private wells are contaminated with MTBE. Current legislative initiatives imposed a tax on gas that includes ethers and the state legislature established a fund specifically designated for MTBE situations when there is no responsible party willing to do the necessary work. A proposal was also floated to ban MTBE.
Petroleum OK in VCP?	Yes — petroleum sites are permitted in the state brownfields program.
Tank-specific Incentives to Remediate	RSA 147-F is a Covenant Not to Sue program that applies to petroleum contaminated sites.

NASHUA, NEW HAMPSHIRE

continued

Tank-specific Incentives to Remediate (cont.)	The reimbursement funds have broad coverage and good transfer provisions, and therefore serve as incentives. There are also statutory liability relief provisions for downgradient properties, as well as municipalities that tax deed property and lenders.
Other Incentives Applicable in Tank Situations	Manchester has an enterprise zone and some incentives stem from that. The State recognizes the potential usefulness of the federal brownfields cleanup expensing tax incentive, but it has not been used to date. DRED maintains a website on state programs applicable to any economic development; mixed sites have used these incentives.
Cost Recovery	Cost recovery working fairly well. New Hampshire has recovered a couple million dollars. State officials can use discretion when cost recovery is not feasible, such as when the site has been abandoned or the owner does not have sufficient financial resources.
Private Sector Involvement	Positive partnerships with private interests on a number of fronts; since program coverage is so good, properties are usually bought immediately. State notes: "If we can make a site eligible for reimbursement, it becomes like any other property with the exception of a deductible and some other cash flow issues."
Market Targets and Issues	No target market for reuse, which is driven by uses that meet local — not state — criteria.
Successes	New Hampshire notes that its UST success is directly attributable to its breadth of coverage. About 2,000 sites brought to closure, as well as approximately 1,500 petroleum spills addressed — • 1129 LUST sites, 903 fuel oil type sites • In a pure USTfields context, about a half-dozen sites have closed and another dozen in various stages prior to closure.
Future Outlook	New Hampshire has spent its USTfields pilot money, on a multi-site investigation, a test-pitting site investigation, and removal of seven USTs. New Hampshire is currently recruiting more sites, including a tannery that is already part of a Concord pilot, and has applied for two additional USTfields pilots. 70% of the state's brownfield sites have a petroleum component, and new opportunities continue to appear. Eventually, the State would like to address every municipally owned orphan and abandoned site.
Misc	State noted that federal LUST Trust Fund support for states has been constant or decreasing. Higher funding means more support and more sites addressed.

Trenton, New Jersey
EPA REGION 2

EPA Contact: Ben Singh, 212 637 4237
State Contact: Terri Smith, 609 984 3122
Information Source: Kevin Kratina, 609 292 8761
State UST website: http://www.state.nj.us/dep/srp/bust/bust.htm

Authorization/ General Information	Underground Storage of Hazardous Substances Act N.J.S.A.58:10A-21 et seq, effective 9/3/86. Budget — Approximately $6.0 Million for the overall UST program, with components in the Bureaus of USTs, Field Operations, and Fund Management, Compliance and Recovery. Staffing — 69 total
UST Trust Fund	New Jersey receives approximately $1.2 million in federal UST Trust Fund dollars which is mostly used to offset program salaries. Program salaries are used to oversee the remediation of UST sites by responsible parties. In state fiscal year 2000 (July '99 — June '00) cases closed totaled $16.72 million in completed cleanups; another $23.63 million in cleanups were approved.
Tank Insurance Fund	NJ does not have a state UST insurance fund. NJ has a limited UST grant/loan program for financial hardship cases. In addition, others conducting remediation can apply for low interest loans under the Hazardous Discharge Site Remediation Fund.
MTBE Issues/ Policy	MTBE has been detected. New Jersey has been sampling for MTBE and dealing with its impacts to groundwater and soil since 1990. MTBE has also been found in potable wells. Two measures have been introduced recently in the state legislature: one bill to investigate MTBE's impacts on groundwater and another bill to ban MTBE.
Petroleum OK in VCP?	Yes — petroleum can be addressed.
Tank-specific Incentives to Remediate	Site enhancements, including reduction in liability, protection of human health and the environment, increase in property value (real or perceived) during sale or refinancing, penalty exposure and possible shutdown of active facilities for non-compliance. Performance review for companies with more than 50 remediation sites in the program.
Other Incentives Applicable in Tank Situations	New Jersey's brownfields program incentives apply to any type of contamination.
Cost Recovery	Cost recovery is not seen as an impediment to brownfields, as most of the brownfield work in NJ is conducted by the dischargers or developers using private funds. If the state pursues remediation with public funds, it seeks cost recovery and — if needed — places liens. Public funds are spent on sites with the highest priority.
Private Sector Involvement	Private sector is responsible for the vast majority of UST remediation in New Jersey. The private sector has also been a stakeholder at legislative debates regarding brownfield legislation.
Market Targets and Issues	New Jersey does not differentiate between USTfields and brownfields. Any party, private or public, may find various components of the existing brownfield program that can address their redevelopment needs.

TRENTON, NEW JERSEY

continued

Successes	Several hundred "brownfield" remediations have been completed in the New Jersey site remediation program, with many visible successes (examples on website noted below).
Future Outlook	The brownfield program has many components, which combine "tools" with private market forces and publication of success stories. The state is always willing to work with private and public interests to enhance brownfield tools.
Misc.	The New Jersey Brownfield Program components can be found in the "*Brownfield and Contaminated Site Recovery Act*" which was signed into law in 1998 (N.J.S.A. 58:10B-1 et seq.). Other helpful publications, video, etc. can be found at http://www.state.nj.us/dep/srp/brownfields/. In addition, the NJ Office of State Planning's publication "*Creating Communities of Place — New Jersey Brownfields Team Directory*" Document 129, revised 1999, is also an excellent resource.

Wilmington, Delaware
EPA REGION 3

EPA Contacts: Karen Bowen, 215 814 3382, and Jack Hwang, 215 814 3387
State Contact: Ellen Malenfant, 302 395 2500
State UST website: http://sirb.awm.dnrec.state.de.us/deusthom.htm
Information Source: Ellen Malenfant

Authorization/ General Information	State's UST act was passed in June 1985. UST program will handle the USTfields pilot. Budget — funding from federal LUST Trust Fund grant, the federal UST grant, and state tank fees and state hazardous substance cleanup act fees Staffing — 24
UST Trust Fund	Not a fund state. A limited reimbursement fund, from the Hazardous Substance Cleanup Act, is available for a limited number of facilities.
Tank Insurance Fund	Tank owners have to get private insurance.
MTBE Issues/Policy	Delaware considers MTBE to be a major issue. Since 1999, testing has become standard policy. 36 domestic drinking water wells, at 10 tank sites, have been impacted. No legislative actions taken to date. A state MCL of 10 ppb is proposed.
Petroleum OK in VCP?	Petroleum is OK on a conditional basis. In addressing such sites, the VCP and UST programs work cooperatively as necessary; if a site has UST issues, that part of the project will be deferred to UST.
Tank-specific Incentives to Remediate	Delaware's FIRST Fund, established in March 2000, up to $500,000 per year to clean up orphaned and abandoned sites.
Other Incentives Applicable in Tank Situations	Brownfield incentives may be used, but the UST program only monitors UST situations.
Cost Recovery	Delaware is bound to cost recovery, per conditions of its federal LUST Trust Fund grant. The need to cost recover or establish an inability to pay can create a lengthy up-front process for non-emergency sites before work begins.
Private Sector Involvement	99% of the UST program's work is with site owners or responsible parties. Abandoned sites might require a partnership with bankers and lawyers. Counties will usually not take an abandoned property.
Market Targets and Issues	State does not target a market. Pilot funds will be spent on orphan and abandoned sites, to enhance their economic viability.
Successes	Of over 2,900 sites on the books with documented releases from USTs, more than 2,200 have been closed; there have been only a couple of reopeners. Given the agency's environmental (rather than economic development) focus, it does not track end uses.

WILMINGTON, DELAWARE

continued

Future Outlook	The State legislature is trying to advance reuse; in 1999, it included a provision in the bond bill to permit use of some of the Hazardous Substance Cleanup Act fund money specifically for abandoned and orphaned UST sites. In 2000, Delaware devised a policy and procedure to implement this, now called "FIRST FUND" (noted above). Will be notifying each of the small towns in the state to let them know of this provision.
Misc.	Traditionally, tank cleanup has been a problem because either no viable tank owner exists, or the owner of the property is either not capable or unwilling to deal with the UST issue.

Anderson, South Carolina
EPA REGION 4

EPA Contact: Dana Hayworth, 404 562 9481
State Contact: Bob Hutchinson, 803 898 4350
State UST website: http://www.scdhec.net/eqc/ust/
Information Source: Bob Hutchinson, with additional information from Mark Berenbrok, 803 898 4355

Authorization/ General Information	USTFields workplan SUPERB act of 1988, title 44. Budget — $2.8 million for FY 2000 administrative costs (not counting cleanup costs) Staffing — the UST Program is split into the Regulatory Compliance Division, the Assessment and Corrective Action Division, the Financial Section, the Enforcement Section, and the Administrative Section, for a total of 52 staff.
UST Trust Fund	State cleanup fund, called the SUPERB Fund, is financed through a half-cent per gallon environmental impact fee on petroleum products, which generates approximately $1.2 million per month. The fund essentially operates like a $1 million insurance policy with a $25,000 per occurrence deductible. A $100 per tank annual registration fee is used for administration of the UST program. The billed amount for FY02 was $1,269,600.
Tank Insurance Fund	No tank insurance fund; the SUPERB fund meets financial assurance requirements. It is administered by the UST Program and pays for assessment and rehabilitation costs and third party liability claims after the $25,000 per occurrence deductible has been met. All work and costs are pre-approved by the UST Program.
MTBE Issues/Policy	State has been testing for MTBE since 1995.
Petroleum OK in VCP?	No — petroleum is not permitted. If a brownfield site with USTs is identified, the brownfield team will contact UST staff. Anderson has two brownfields — an abandoned mill and a rail yard — and the selected USTfields are adjacent to or near these downtown brownfield sites. A release from a regulated UST system closed in 1988 was identified during the assessment of the rail yard brownfield. This release is currently being assessed.
Tank-specific Incentives to Remediate	None — but a statutory level of protection for potential investors exists; if a party buys property where tanks have been removed, they are not responsible for assessment and rehabilitation activities. They are responsible for abating any emergency activities. The SUPERB Fund is not limited to the owner and operator of an UST at a site; a third party that wants to address a release potentially has access to the state fund. This has served as an incentive for some of these sites.
Other Incentives Applicable in Tank Situations	None used to date.
Cost Recovery	For the use of State funds, if the cost is small, it may not be efficient to pursue cost recovery. Cost recovery for confirmed releases has not been an impediment to cleanup. However, cost recovery associated with USTField Pilot Project funds has hindered assessment and related activities at some sites.
Private Sector Involvement	Ideally, USTfields are looking for partnerships — so that someone is pulling tanks, some one is doing assessments, and someone is investing in reuse.

ANDERSON, SOUTH CAROLINA

continued

Market Target and Issues	State sent out letters to counties, commercial realtors, and other potential partners to generate interest in USTfields; the response has been limited to date. A lot of the sites are located in rural areas with limited economic development opportunities. "Mom and pop" gas stations will be a real challenge. In some cases, the UST Bureau has to be satisfied with carrying out abatement and assessment on its own, in the hopes of eventually finding partners for redevelopment.
Successes	Using RBCA and competitive bidding, the State has cleaned up and closed out numerous sites.
Future Outlook	The State will address the issues in the pilot program, beginning with a general assessment of about five sites in Anderson. From that analysis, it will identify long term objectives that it would like to achieve. One objective will be to identify all USTfields in South Carolina and develop a plan to address all of them. The lack of money and the lack of real end-uses for some of these properties are impediments to redevelopment.
Misc.	State program manager notes — "I've always had an interest in cases where there are pre-'74 tanks that are still in the ground. What are the incentives for that owner to get involved, assess, potentially cleanup" these sites? In addition, how can owners get enticed into the UST fields initiative?

Chicago, Illinois
EPA REGION 5

EPA Contact: Arturo Cisneros, 302 886 7447
State Contact: Doug Clay, 217 782 9844
State UST website:http://www.epa.state.il.us/land/lust/index.html
Information Source: Heather Nifong

Authorization/ General Information	35 Illinois Administrative Code, Parts 731 and 732 Budget — Funding from the Federal LUST Trust Fund Grant and State UST Fund. Staffing — 35 project mangers; one person will work on the pilot. Bureau of Land's Division of Remediation Management contains the Office of Brownfields Assistance (OBA), LUST, and the Site Remediation Program (SRP, Illinois' Voluntary Cleanup Program). LUST and VCP use Tiered Approach to Corrective Action Objectives (TACO) and "no further remediation" letters. The process is the same, but the qualifications for these two programs are different. OBA is much smaller than LUST and the VCP. All three programs work together and overlap.
UST Trust Fund	The Illinois UST Fund is financed through a 3/10 of a cent tax and a 8/10 of a cent fee on gasoline, generating $50-60 million per year. The Fund is currently solvent and claims are generally processed in 60-90 days.
Tank Insurance Fund	No tank insurance fund; the State UST fund meets financial assurance requirements. It is jointly administered by the Office of the Fire Marshal and Illinois EPA, and pays for cleanups up to $1 million.
MTBE Policy	A ban on MTBE in Illinois will go into effect in three years. It is being added to the Illinois LUST and cleanup regulations as an indicator contaminant, to become effective by the Summer of 2002. The proposed objective for groundwater is 70 ppb.
Petroleum OK in VCP?	Yes — Petroleum is acceptable in the VCP. The LUST program and the VCP work together on sites involving USTs.
Tank-specific Incentives to Remediate	Tax credits are available to those who have earned a "no further remediation" letter from the Illinois VCP. A tank owner and operator could transfer the site to the VCP but that is unlikely since this could jeopardize reimbursement from the UST Fund.
Other Incentives Applicable in Tank Situations	Nothing separate.
Cost Recovery	Cost Recovery is not seen as an impediment to USTfield projects in Illinois. If the state pursues remediation with public funds, it seeks cost recovery.
Private Sector Involvement	The program works with the private sector at all levels, from responsible parties to the Western Illinois Regional Council and the Illinois Petroleum Marketers. In addition, Illinois holds an annual All-Cities Brownfields Conference that includes governmental and private sector representatives.
Market Targets and Issues	The pilot site will be used for low income housing.

CHICAGO, ILLINOIS

continued

Successes	Nearly 11,000 LUST sites have completed remediation. Economic development and end-uses are not tracked.
Future Outlook	The long term USTfields strategy is to expand the program. In addition, the State would like to develop an orphan tank program, however funding for such a program has not yet been determined.
Misc.	Chicago sees the public benefit in the health and safety and social crime aspect of tank site cleanup and reuse. In terms of other communities within the State, interest and priorities are a local decision, and not one that the State can make for them. These cities need people with a vision who know that the program and the opportunities exist. Information concerning the Illinois USTfields Pilot Grant can be found at the website above.

Laguna, New Mexico
EPA REGION 6

EPA Contact: Christine Cherrett, 214 665 7342
State Contact: Joyce Shearer, 505 984 1935
State UST website: http://www.nmenv.state.nm.us/ust/ustbtop.html (go to Environmental Protection Division, then hit UST Bureau)
Information Source: Jerry Schoeppner, 505 984 1939

Authorization/ General Information	State Hazardous Waste Act authorized regulation of USTs in mid 1980s. (74-4-3); State program approved in 1991 via the Ground Water Protection Act. Budget — $18 million annually, — $12 million for responsible party sites, and $6 million for State lead sites (where the State is the contracting party without acknowledging responsibility) Staffing — 20 project managers, ranging from supervisors with 50+/- sites to project managers with about 85 sites. Recently enacted legislation granted authorization to regulate ASTs.
UST Trust Fund	Currently at a level of $18 million a year; at end of each fiscal year, Cabinet Secretary determines level for next year (depending on unobligated ending cash balance). Revenue fluctuates between $0 and $18M/year. In 1995 fund was cut in half, but in 1996 it was reinstated without a sunset clause and a sliding scale was put in place.
Tank Insurance Fund	No separate insurance fund.
Petroleum OK in VCP?	Yes — petroleum is accepted.
MTBE Policy	MTBE policy in place since 1990 (100 ppb aesthetic standard). In New Mexico, benzene drives cleanups, rather than MTBE. Wells have been shut down, but from benzene usually (although MTBE shows up first because it is more mobile). An estimated 35% to 40% of sites have MTBE present. MTBE was introduced into New Mexico in approximately 1986.
Tank-specific Incentives to Remediate	Biggest incentive is reducing responsible parties' liability. New Mexico has very few third party liability suits. Also: • if parties can demonstrate that they qualify as owners or operators of a facility, they can be eligible for reimbursement • VRP program benefits are available if site cleaned up under VRP and they can apply for cleanup under that
Other Incentives Applicable in Tank Situations	None.
Cost Recovery	New Mexico has been able to balance the need for cost recovery against the need for action at abandoned sites.

LAGUNA, NEW MEXICO

continued

Private Sector Involvement	New Mexico reaches out on a case by case basis, including to tribal lands with cooperative agreements to partner with the State to clean up sites (although less than 1% of the State's efforts currently involve tribes). At this point, there is not much private involvement, although this pilot grant might change the potential for these partnerships.
Market Targets and Issues	Short "window of opportunity" for work at appropriate sites combined with uncertain date of accessibility of grant funds resulted in a change of selected sites for the USTfields pilot initiative.
Successes	No sites remediated yet.
Future Outlook	With 19 pueblos and several tribes, huge areas of the State are covered by tribal properties. Therefore, the UST Bureau's biggest initiative is to bridge the gap between federal, state, and tribal governments.

Kansas City, Missouri
EPA REGION 7

EPA Contact: Janet Hallier, 913 551 7532
State Contact: Carol Eighmey, 573 522 2352
State UST website: http://www.dnr.state.mo.us/deq/hwp/tanks.htm
State Fund website: http://www.pstif.org
Information Source: Carol Eighmey with additional information from Andrew Bracker, City of Kansas City, MO 816 513 3002

Authorization/ General Information	DNR Hazardous Waste Program and Petroleum Storage Tank Insurance Fund, Chapter 319, Sections 100-139; passed August 28, 1989 Budget — Annual budget for all tanks-related regulatory work, including oversight of USTfields cleanups, is $4.36 million. Annual revenues to State tank fund available for cleanup of tank sites, including USTfields, is $15 million. Annual federal LUST Trust Fund money for cleanups is $400,000. (All figures are as of state fiscal year 02.) Staffing — 57.7 FTEs in regulatory agency (FY02) for all tanks-related work, including USTfields. Staffing for State tank fund varies with demand for services, but ranges from 20 to 24.
UST Trust Fund	Petroleum Storage Tank Insurance Fund (PSTIF) is the State fund established in 1989. It is independent from the regulatory agency, and is managed by a board of trustees. Originally, it only insured operating tank sites, but in 1995 State law was amended so PSTIF could also pay for cleanup of old, out-of-use tank sites. Hundreds of USTfields have been cleaned up and redeveloped since, but if a property was not listed with PSTIF by certain deadlines established in the statute, it is not eligible. Not all USTfields, therefore, are eligible for funding from the State fund.
Tank Insurance Fund	Same as above.
MTBE Issues/Policy	The State has dealt with MTBE since 1992, and it is a high priority issue. LUST cleanups have included laboratory analysis for MTBE since 1994. MTBE is found at about one-third of LUST sites, but impacts on drinking water have been limited. To date, MTBE has been found in 6 public drinking water wells and 32 private wells (at a total of 23 different sites) have been impacted. Alternate water supplies have been provided in all cases.
Petroleum OK in VCP?	Petroleum-contaminated sites can be handled by the VCP, if the contamination is not from a federally regulated underground tank. For example, contamination from heating oil tanks, terminals, pipelines, and aboveground tanks not used for retail purposes are eligible for VCP.
Tank-specific Incentives to Remediate	The State tank fund provides liability protection, and redevelopers can obtain money for cleanup of tank-related petroleum contamination, regardless of who is liable for it, if the site is eligible under PSTIF rules. For sites ineligible for PSTIF money, VCP provides regulatory oversight and grants or tax incentives are available from DED.
Other Incentives Applicable in Tank Situations	For tank sites that are ineligible under PSTIF (unregistered or unregulated), financial assistance for investigation and cleanup may be available from the Missouri Brownfields Redevelopment Program. Jointly administered by the Departments of Natural Resources and Economic Development, the program offers up to 100% financing of eligible cleanup costs through State tax credits, loans, and grants for sites remediated through the VCP.
Cost Recovery	Program officials have different opinions regarding the extent to which cost recovery impedes reuse. State fund does not cost recover, but it can pursue insurance carriers. The DNR expends federal dollars and those do come with cost recovery provisions. The local

KANSAS CITY, MISSOURI

continued

Cost Recovery (cont.)	view is that cost recovery can greatly complicate the challenge of cleaning up, transacting, and redeveloping tank sites, which are often owned and purchased by private individuals and small businesses with little ability to repay federal assistance.
Private Sector Involvement	Missouri works with whomever owns or plans to buy the property. Kansas City works closely with private owners, potential buyers, the community, and the Economic Development Corporation to facilitate a redevelopment. The local program also holds forums, roundtables, and workshops for private and public stakeholder outreach and education.
Market Targets and Issues	Because the vast majority of USTfields are located in the state's two largest metropolitan areas, St. Louis and Kansas City, initial pilot projects have focused on these cities. Four blighted pilot sites were identified in Kansas City. Like most brownfield sites in Kansas City, all are privately owned. Close public-private partnerships will be the cornerstone of successful redevelopment of these sites. In addition, the City and State are working to develop a strategy to identify, assess and rank sites according to their potential for redevelopment in connection with surrounding City and private redevelopment projects and initiatives. Sites will be examined in groups, rather than individually, to explore assembly of developable parcels for uses that are supported by market research and local planning, and to reduce costs of assessment and cleanup through economies of scale.
Successes	The state does not track property reuses. The vast majority of NFA letters have no use restrictions. USTs have been removed from about 9000 properties; at about 4,000 of those sites, where a cleanup was necessary, the cleanup has been completed. The vast majority of these sites were cleaned up with private dollars or a combination of private and state funds, which points to a regulatory program that has appropriate goals and a reasonable and straightforward process for achieving those goals, and a successful state tank fund.
Future Outlook	With the combination of more federal funding, extension of the State tank fund to 2010, and better coordination with existing Brownfields resources and city economic development efforts, hundreds of Missouri USTfield sites can not only be cleaned up, but put back into productive use for their communities. More work is needed to quantify the remaining problem, including completing an inventory of all USTfield sites and evaluation of which ones are eligible for funding from various sources. Once this is completed, it can become a crucial piece of the larger redevelopment plans of the major metropolitan areas. Smaller cities and rural areas will need to be included in this overall effort, with the goal of identifying all USTfields in the State, and determining whether each site has contamination, by 2010. Implementation of a more sophisticated Risk Based Decision-Making approach by the State tank regulatory agency is expected to expedite the USTfields effort and allow available financial resources to be directed to sites posing the greatest threat to human health and the environment.

Salt Lake City, Utah
EPA REGION 8

EPA Contact: Joe Ann Taylor, 303 312 6152
State Contact: Dale Marx or Dale Urban, 801 536 4100
State UST website: http://www.eq.state.ut.us/eqerr/ust.htm
Information Source: Dale Urban

Authorization/ General Information	Utah Code Ann., 19-6-401 et. seq., enacted in 1989 Budget — $2.8 million for program administration Staffing — 25 people in three different sections working on tanks: Underground Storage Tank Section; Petroleum Storage Tank Fund Section; and a Leaking Underground Storage Tank Remedial Assistance Section. Two staff members work periodically on the USTfields pilot program.
UST Trust Fund	State and federal cleanup funds vary annually in the LUST Trust Fund.
Tank Insurance Fund	Petroleum storage tank fund, with $27.8 million (balance FY 2001), is an assurance fund that helps owners meet their federal financial assurance requirements. State cleanup fund balance varies annually based on revenues collected and cleanup costs for eligible sites.
MTBE Issues/Policy	Cleanup levels for MTBE have been established, but it is usually not a major issue for tank cleanups. No water wells have been shut down yet because of MTBE.
Petroleum OK in VCP?	Yes — petroleum is OK, depending on its source. VCP handles petroleum from non-regu - lated tanks and other sources; otherwise the site is regulated by the UST program. Sites can be co-managed; process is site-specific, but flexible.
Tank-specific Incentives to Remediate	Low interest loan fund, offering ten-year, 3% fixed loans for tank closure or upgrades, but not for investigation or cleanup costs.
Other Incentives Applicable in Tank Situations	Salt Lake City's Vacant and Boarded Gas Station Program, run through Salt Lake City's redevelopment agency, funds cleanup and marketing of abandoned gas station properties (contact John Billings at 801 535-7244).
Cost Recovery	Full-time attorney in Attorney General's office assists with cost recovery on a site-specific basis. Overall process is not a major deterrent to site cleanup and reuse.
Private Sector Involvement	The UST program routinely interacts with the regulated public, other regulatory agencies, environmental consultants, real estate agents, interested buyers, developers, attorneys, and other interested parties.
Market Targets and Issues	Marketing is being left to Salt Lake City's redevelopment agency because of their experience in this arena.
Successes	To date, over 3,200 leaking UST sites have been cleaned up and closed out. Two separate rural pilot studies for USTFields on a different tangent (e.g., no contractual costs incurred) have been documented. (Site #1) Abandoned commercial property located near a rural residential neighborhood with known environmental contamination at time of UST closure; Sevier County acquired property in annual tax sale & granted UDEQ access; UDEQ conducted targeted site assessment and risk-based cleanup/closure evaluation.

SALT LAKE CITY, UTAH

continued

Successes (cont.)	• Positive aspects: Abandoned building demolished; City and County lease agreement for fixed land use (institutional control over remaining contamination); Local community has desired access road into subdivision; and, an underutilized property was successfully redeveloped. • Negative aspects: Site not "closed" by UDEQ because the full off-site extent of groundwater contamination remains undefined. Low contaminant levels do not warrant enforcement actions. (Site #2) Abandoned commercial property located in residential neighborhood; building was demolished, but UST's at the site in unknown condition were left in-place. After demolition, the property was transferred to Weber County. • Weber County pumped ~3,500 gallons of petroleum product from four abandoned UST's and conducted a title search to assist UDEQ with apportionment of liability process. • UDEQ completed targeted site assessment at the facility and was able to issue a closure letter ("No Further Action") for the site based on remaining contaminant levels. • Weber County conducted UST closure and is in the process of selling the property for development into two single-family residential lots.
Future Outlook	The long term USTfields strategy is to expand the program to rural and urban settings throughout Utah. The lessons learned from the current pilot projects may assist other cities or counties in addressing underutilized UST properties and bring them back into productive use or to serve a local community need.
Misc.	Utah is in the design and policy planning stage of its USTfields program.

Oakland, California
EPA REGION 9

EPA Contact: Matt Small, 415 744 2078,
or April Katsura, 415 744 2024
State Contact: Liz Haven, 916 341 5752
State UST website:
http://www.swrcb.ca.gov/~cwphome/ust/usthmpg.htm
Information Source: Kevin Graves, 916 341 5782

Authorization/ General Information	Title 23, Division 3, Chapter 16, Articles 1 to 11 California Code of Regulations, pursuant to Chapter 6.7 of the Health and Safety Code. Original legislation passed in 1983. Regulatory oversight for California's UST Program is provided by local agencies. Regulatory oversight for the UST Cleanup Program is provided primarily by 29 local and State agencies. Budget and staffing are not readily determined.
UST Trust Fund	Called the UST Cleanup Fund, it is solvent every year. Supported by a mil tax on gas, it generates $185 million a year and pays out the full amount every year.
Tank Insurance Fund	The Cleanup Fund serves as both the UST Trust Fund and the Tank Insurance Fund.
MTBE Issues/Policy	MTBE has impacted 52 public groundwater supplies and hundreds of smaller domestic wells. The State will ban the use of MTBE as of December 31, 2002.
Petroleum OK in VCP?	The VCP is administered by the Department of Toxic Substance Control which generally does not handle petroleum cases unless the petroleum release is small compared to a release of another constituent.
Tank-specific Incentives to Remediate	The Cleanup Fund reimburses up to $1.5 million per site.
Other Incentives Applicable in Tank Situations	The Emergency, Abandoned, and Recalcitrant Account (EAR) is used by an agency that takes over the cleanup. It is similar to the UST Fields program in that it provides a funding mechanism for abandoned sites.
Cost Recovery	The Cleanup Fund reimburses for costs expended by responsible parties, therefore cost recovery is not necessary. Claimants are not charged for oversight directly because the cleanup agencies are generally funded through the UST program. The EAR account has a cost recovery component, but it is often not successful because the account is primarily used to fund sites with bankrupt owners.
Private Sector Involvement	The UST Cleanup Program works with private sector contacts at all levels, including individual responsible parties, the Western States Petroleum Association, and the American Petroleum Institute.
Market Targets and Issues	The UST Cleanup Program does not have established relationships with developers on a statewide level. Regulatory oversight agencies may interact with developers on specific projects to streamline the approval process where appropriate.
Successes	The City of Oakland has established a streamlined permitting and cleanup process that is helping to redevelop underused properties in the city. This is one example of many redevelopment successes throughout California.

OAKLAND, CALIFORNIA

continued

Future Outlook	California's regulatory agencies are focusing on high priority sites — those most likely to impact a well first. The regulatory agencies are using GIS to manage data spatially and to identify sites closest to wells so that additional wells aren't impacted. Staff supports the UST Fields goal to expedite development of abandoned properties and supports the increasing use of the USTfields grants as well as the EAR account.
Misc.	USTfields is currently a very small part of the UST Cleanup Program in California. More resources for outreach to communities and redevelopment agencies would be necessary to expand the program significantly.

Portland, Oregon
EPA REGION 10

EPA Contact: Wally Moon, 206 553 6903
State Contact: Jim Glass, 503 378 8240
State UST & Brownfields websites:
http://www.deq.state.or.us/wmc/tank/ustlust.htm
Information Source: Jim Glass, with additional information from Stephanie Holmes, 503 378 8240

Authorization/ General Information	Oregon Revised Statute (ORS) 465.200 - 465.555 and ORS 466.706 - 466.845 Budget — $2 million LUST and $700,000 UST per year Staffing — 23 full time LUST employee equivalents, and 9 in UST
UST Trust Fund	Oregon does not have an UST trust fund. A $4 million orphan fund for remedial actions for hazardous substances has recently included some UST cleanup projects, although as part of the VCP, it is not money that the tanks program typically has access to. Note: Funding for this program has recently been reduced.
Tank Insurance Fund	No
MTBE Issues/ Policy	MTBE is an issue in Oregon, however, levels so far are low and it is not a driving force on many of the UST cleanups. DEQ continues to monitor for MTBE in groundwater at UST sites as well as monitoring fuel quality and documenting MTBE's appearance in the fuel supply. DEQ, Oregon Health Division, and Oregon Dept. of Agriculture are working together to assess groundwater and potential sources of MTBE contamination near public water systems throughout the State.
Petroleum OK in VCP?	Yes — petroleum is accepted if it is from an above ground tank or spill. If there is an UST investigation with non-petroleum constituents, the VCP and tank programs coordinate on the investigation and cleanup. If non-petroleum impacts are larger than petroleum impacts, then VCP may take the lead and coordinate with UST and vice versa.
Tank-specific Incentive to Remediate	Property marketability or refinancing. Oregon Economic and Community Development Department (OECDD) recently introduced the "Oregon Brownfields Redevelopment Fund" which can provide up to $200,000 if the brownfield is located within an economically distressed community and up to $150,000 to brownfields outside an economically distressed community in the form or grants or low interest loans.
Other Incentives Applicable in Tank Situations	Brownfields incentives promote the use of community economic development tools; the UST Program staff are working to provide improved access to these funding options. The Governor's office recently developed "Community Solutions Teams" (CSTs) with regional representatives to work with communities to prepare comprehensive land use plans and help facilitate a variety of redevelopment efforts.
Cost Recovery	Cost recovery is the "lifeblood" of Oregon's UST Cleanup program. Oregon cost recovers against all sites with the exception of sites with bankrupt owners, those with foreclosure and inheritance issues, and sites where the responsible party has been found to have no ability to pay. Cost recovery is often an impediment to cleanup and redevelopment. Cost recovery began in 1988 to hold responsible parties liable for remedial action costs including oversight and review. In 1991, the State developed a responsible party priority (in lieu of environmental priority) list to help facilitate property transactions by allowing DEQ oversight on lower priority sites. This process requires the responsible party to sign a cost recovery agreement with the state.

PORTLAND, OREGON

continued

Private Sector Involvement

More outreach in the form of improved communication and technical assistance to City, County, and State officials as well as private sector developers and community groups to promote USTfields redevelopment and beneficial impacts.

Market Targets and Issues

Oregon has identified approximately 300 Abandoned Tank sites and is targeting those properties for removal of fuel and an initial assessment to determine their environmental impacts/priority and provide a redevelopment incentive. An important State role is "getting people past their fear of the unknown." By doing these assessments and determining if there are real or only perceived or possibly insignificant levels of contamination, many properties will become marketable.

Successes

TOTAL RELEASES FROM REGULATED USTS

# of releases reported	6,534
# of cleanups initiated	6,000
# of cleanups completed	4,351

Oregon has been finding creative ways to get sites developed for years. Many purchasers or developers have used prospective purchase agreements to limit their liability and find financing. Initially 3 projects have been proposed through the USTfields pilot. Additional sites have been identified and some are simultaneously being assessed or cleaned up as opportunities allow.

Prior to this USTfields pilot, several projects worthy of mention were successfully redeveloped in Oregon. The following three examples were redeveloped in 1999/2000:

Former Taft Garage: A former service station from the late 1920s to the early 1980s, the site was purchased by a private developer in 1998. The Water's Edge condominium complex is now complete on the site and occupied while the groundwater remediation and monitoring continue.

Parking Structure #1 — Medford. The City of Medford Urban Renewal Agency undertook the construction of a new multi-story-parking structure on the site of a former car dealership turned city parking lot. In addition, the Middleford Alley was constructed to promote pedestrian friendly access to adjacent businesses.

Landing at Newport: This site was an operating marine fueling facility from 1974 to September 1999.

Condominium complex is now complete on the site and units are currently being sold.

Future Outlook

The DEQ Brownfields work group intends to pursue one of three program "vehicles" over the next three years:

• The Corvette — formal USTfields/brownfields division with folks dedicated to tracking down economic development and providing lending expertise assistance in the pursuit of grants, with full representation of all programs and a budget to adequately support the program.
• The Chevette — a subprogram with a coordinator in each region and staff with good fundamental working knowledge of mechanisms and funding resources, in cooperation with Oregon Economic and Community Development Department (OECDD).
• The Ten-Speed — a 1/4 to 1/2 full time employee in each of Oregon's 3 regions, dedicated to USTfields work.

PORTLAND, OREGON

continued

Future Outlook (cont.)	The Brownfields Work Group is not yet an official program. However, it is a group of motivated individuals dedicated to promoting redevelopment as a component of cleanup. We plan to further develop our working relationships with both HUD and OECDD (the current clearinghouse for most of the funding options available for redevelopment). Our goal is to increase Brownfields/USTfields communication, coordination, and consistency across the state.
Misc.	Brownfields/UST fields has a combined work group with staff in both the Agencies Cleanup and UST/LUST programs. The work group recently drafted the following purpose statement: "Increase cleanup of contaminated sites while generally maximizing the environment, economy, and quality of life benefits to Oregon's communities." The pilot grant has resulted in the UST program being a much more active partner in brownfields redevelopment and coordination with OECDD, communities, other State agencies, land use planning departments, and community solution teams (out of the Governor's office). The UST/LUST program formally adopted USTfields as a part of our strategic plan to help increase reuse and redevelopment opportunities at abandoned underused motor fuel facilities statewide.