

Catalyzing Redevelopment:

*Innovative Approaches and Emerging
Best Practices in State Petroleum
Brownfield Initiatives*



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Executive Summary

Across the country, states are experimenting with innovative new approaches to brownfields and petroleum brownfields remediation and redevelopment. Through simplified regulatory processes, new methods for supporting redevelopment, and greater information sharing, states are overcoming longstanding obstacles to remediation projects. This report provides concrete examples of applied practices and programs currently in use throughout the country, along with information about regulatory and procedural changes that states have successfully deployed. The information and findings in this report can be used by diverse audiences, including policymakers, state program administrators, academics, and developers interested in learning about current brownfields trends and best practices.

The state practices profiled in this report can be grouped into three overarching themes. Fundamentally, these practices are intended to 1) simplify redevelopment processes; 2) provide critical redevelopment support; and 3) make useful information more accessible to the public. These three themes – simplification, support, and information – provide a lens through which states can review and strengthen the effectiveness of their own programs. Each chapter in this report closes with a set of legal, regulatory, and policy recommendations, grouped under the three themes, that states and other parties can use to improve the brownfields and petroleum brownfields redevelopment process. These recommendations include:

Simplification:

- Adopt risk-based corrective action in order to enable greater flexibility in brownfields and petroleum brownfields remediation.
- Review state laws and regulations for opportunities to expedite foreclosure and condemnation processes.
- Look for opportunities to simplify regulatory processes by participating in federal programs that offer streamlined approaches, such as EPA's One Cleanup Program.
- Create a lead or oversight entity to manage redevelopment projects in order to streamline redevelopment.
- Develop methods to integrate brownfields information tracked by multiple programs into one centralized repository.
- Review existing restrictions on state brownfields funding programs and relax requirements, where appropriate, so as to expand the eligibility pool to include individuals, business entities, and nonprofit groups.
- Develop an expedited permitting process for brownfields projects.

Support:

- Direct resources toward multi-site projects in order to support more comprehensive redevelopment of brownfield and petroleum brownfield sites.

- Develop programs to encourage and remove any barriers to successful public-private partnerships that can jointly leverage resources for remediation and redevelopment.
- Consider whether legislation enabling land-banking is appropriate for your state.
- Enhance liability protection for parties who are not responsible for pollution and who are willing to assume responsibility for remediation and redevelopment.
- Review the availability of brownfield-targeted environmental insurance in your state and consider whether purchase incentives or discount programs would encourage greater insurance use.
- Develop legislation to enable cost recovery for investigation and remediation of contaminated sites.
- Review state brownfields funding programs and remove arbitrary application deadlines. Consider adopting rolling deadlines to encourage greater applicant participation.
- Develop methods to track and communicate the benefits of successful brownfields remediation projects, such as jobs and increased property values, to build public support for further public investment.
- Explore opportunities for new types of public-private partnerships, including joint ventures with nonprofit groups and/or private funding of government staff positions.
- Review existing state tax credits and other financial incentives for brownfields projects and consider whether to develop new programs, such as targeted rebates tied to job creation or delinquent real estate tax forgiveness programs.

Information:

- Develop methods to collect and maintain, in a statewide database, detailed information about the use of institutional controls on brownfield sites. Use this information to develop monitoring and enforcement mechanisms to ensure long-term compliance.
- Develop long-term monitoring and evaluation systems and maintain information in a centralized database, to track the outcome of state-supported brownfield redevelopment projects over time. Consider establishing an annual or biannual cycle for issuing summary reports.
- Create a centralized interagency taskforce or other resource group where policymakers and program administrators who focus on different aspects of brownfield remediation can exchange information and stay abreast of current brownfield developments. Consider including private developers within the group.
- Develop tracking methods to capture site-specific information useful to redevelopers, including location, type(s) of suspected contamination, opportunities for combining multiple parcels into large development areas, and sites already undergoing remediation and redevelopment.
- Use technology such as GIS databases and Google Earth to make tracked brownfields information easily accessible to the public.

- Develop tracking methods to capture information on economic benefits attributable to brownfields redevelopment, such as job creation and increases in property values.
- Conduct regular reviews of federal and state brownfields funding resources, including deadlines and eligibility requirements. Consider publishing resource guides summarizing this information for local governments, community groups, and private developers.

This report was developed in three phases. First, using stakeholder input, researchers developed an analytical framework for examining state brownfield and petroleum brownfield initiatives. The framework comprises the five thematic areas presented in the introduction (trends in brownfields redevelopment, legal tools, institutional streamlining, information sharing, and financial resources).

Second, researchers assessed state efforts within this framework. They reviewed relevant statutes, regulations, and documents from state-led efforts, as well as agency, industry, and NGO reports. Researchers also interviewed approximately 35 stakeholders from four key states (Florida, Wisconsin, Ohio, and Colorado) to gather information and document experiences with the achievements and shortcomings of state-led efforts.

Third, researchers selected examples of emerging best practices and innovative approaches from the state assessment reports that were compiled. Best practices are often defined as methods that are commonly used within a sector and/or methods that generate desired intended outcomes for common users. Because the data set available for state petroleum brownfield analysis covers only a small percentage of U.S. states, it is not currently possible to discern with confidence settled best practices. As a result, this paper discusses places where a convergence of state practice has occurred, as that is the most likely place where best practices may emerge. And finally, based on a review of these convergences, the recommendations to improve state practices listed above were developed.

Introduction

Almost every city and town in the United States is confronting some form of petroleum contamination or a harmful perception that contamination exists. Emanating from abandoned gas stations, auto body shops, factories, mill sites, shipyards, transit stations, junkyards, and underground storage tanks, petroleum contamination is an obstacle to redevelopment of both rural and urban spaces. Cleanup is often costly, and negative stigmas can persist. Despite the challenges that these “petroleum brownfields” pose, they also present important opportunities for new forms of economic development. Innovative petroleum brownfield redevelopment projects can eliminate blight, create important community space, create affordable housing, attract new investment, and create jobs and economic growth in underserved areas.

While many of the lessons learned from brownfields redevelopment can inform petroleum site strategies, petroleum brownfields also present unique obstacles. Petroleum brownfields are, at times, less attractive to redevelop because they are often smaller than the average brownfield site, and underground storage tanks (USTs) – the most common source of petroleum contamination – are more expensive to remediate than other sources of contamination. When addressed individually, many petroleum brownfields are ineligible for environmental insurance and conventional forms of financing.¹ At the federal level and in many states, petroleum brownfield cleanup regulations and grant programs are separate from those governing other brownfield sites. The US EPA requires petroleum brownfield sites to clear hurdles not required of non-petroleum sites before a site can be determined eligible for funding assistance. To be eligible for funding, a petroleum site must be of “relatively low-risk” compared with other petroleum-contaminated sites within a state,² and there must be no viable responsible party available to fund the cleanup.³ Additionally, EPA is limited by statute in how it awards petroleum brownfield grant funding. Current law requires that \$50,000,000 or 25% (whichever is less) of annually appropriated total EPA brownfield funding be used for petroleum brownfield sites.⁴ This mandate has resulted in the establishment of a two-track brownfields funding process – one for petroleum brownfields sites and another for non-petroleum sites – that results in added administrative complexity for applicants as well as state and federal government administrators.⁵

Box 1: Defining Brownfields and Petroleum Brownfields

The U.S. Small Business Liability Relief and Brownfields Revitalization Act (“Brownfields Law”) defines a brownfield site as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” 42 U.S.C. § 9601(39)(A).

The law further defines the term “brownfield site” to include sites that are contaminated by petroleum or certain types of petroleum products. 42 U.S.C. § 9601(39)(D)(ii)(II).

The petroleum contamination can be released from any of a number of sources, including underground storage tanks (USTs), aboveground storage tanks, refineries, and pipelines. Most states have a similar definition of brownfields.

As states address the complex problems posed by petroleum brownfield sites, they assume various overlapping roles in the redevelopment process. States often simultaneously act as the regulator, data aggregator, and source of financial and technical support for these projects. In providing redevelopment support to private actors and local governments, states face both the challenge and the opportunity to develop innovative approaches and best practices for achieving success.

This report, authored by the Environmental Law Institute (ELI) with contributions from the U.S. Environmental Protection Agency's (US EPA) Office of Policy (OP) and Office of Underground Storage Tanks (OUST), is intended to serve as a resource for state policymakers and practitioners by providing an overview of innovative state-level approaches and emerging best practices for the cleanup and redevelopment of brownfields generally and petroleum brownfields specifically. It is part of *Overcoming Obstacles to Redevelopment of Petroleum Brownfields and Other Vacant Properties*, a multi-year cooperative agreement that seeks to educate policymakers on practices and approaches for promoting the cleanup and sustainable redevelopment of petroleum brownfields. The report highlights best practices and tools that have been used in brownfield and petroleum brownfield redevelopment efforts, presenting success stories from innovative approaches used by states across the country.

Chapter 1, *Petroleum Brownfields: Challenges and Opportunities*, begins by discussing the unique challenges of petroleum brownfield remediation and briefly describes the state's role in each step of the cleanup process. **Chapter 2, *Emerging Trends in Brownfields and Petroleum Brownfields Redevelopment***, examines emerging frameworks and trends in the brownfields redevelopment process that constitute state best practices. These include facilitating multi-site redevelopment, promoting public-private partnerships, and using risk-based corrective action to efficiently and effectively cleanup sites. **Chapter 3, *Legal Tools to Promote Brownfields and Petroleum Brownfields Redevelopment***, examines a range of laws and regulations that states are employing in order to overcome obstacles to brownfields redevelopment. These tools include legal provisions to expand foreclosure authority, hold properties until market readiness, establish liability protection, incentivize environmental insurance, develop institutional controls, and strengthen cost-recovery mechanisms. **Chapter 4, *Institutional Streamlining***, examines the benefits of harmonizing and coordinating the institutions and processes behind brownfields redevelopment, including simplifying administrative procedures, harmonizing regulations, and integrating strategies across different levels of government.

The next two chapters turn to the critical matter of resources to support brownfields redevelopment. **Chapter 5, *Developing and Sharing Information about Brownfields Redevelopment***, highlights strategies for gathering and sharing information about potential redevelopment sites as well as redevelopment success stories. Because redevelopment cannot take place without adequate financial resources, **Chapter 6, *Financial Support for Site Assessment, Cleanup, and Redevelopment***, examines the range of funding sources available through state programs to support developers, local governments, and community groups engaged in brownfields redevelopment. **Chapter 7, *Conclusions***, identifies ways that the identified best practices can complement one another and ultimately lead to a more effective approach to brownfields and petroleum brownfields redevelopment.

Notes

¹ Elizabeth Schilling and M. D'Angelo, *From Vacancy to Vibrancy: A Guide to Redeveloping Underground Storage Tank Sites through Area-Wide Planning 4* (2012), available at <http://www.smartgrowthamerica.org/documents/from-vacancy-to-vibrancy.pdf>.

² 42 U.S.C. § 9601(39)(D) (ii)(II)(bb)(AA) (2011).

³ 42 U.S.C. § 9601(39)(D) (ii)(II)(bb)(BB) (2011).

⁴ 42 U.S.C. § 9604 (k)(12)(B) (2012).

⁵ For a more extensive discussion of the challenges to successful petroleum brownfield remediation efforts at the federal level, see Northeast-Midwest Institute & the National Brownfields Coalition, *EPA Brownfields Program – Issues and Opportunities: Petroleum/UST Brownfield Cleanup* (2007), available at <http://www.nemw.org/images/stories/documents/Petroleum%20issue%20opportunity%20brief.pdf>.

Chapter 1

Petroleum Brownfields: Challenges and Opportunities

Petroleum brownfields account for nearly half of the approximate 450,000 brownfield sites in the United States.¹ The majority of petroleum brownfields are comprised of bulk storage facilities (also known as above-ground storage tanks), leaking pipelines, and leaking underground storage tanks (LUSTs). While underground storage tanks can hold other contaminants and only constitute one type of petroleum brownfield, they are overwhelmingly the focus of petroleum brownfield efforts at the state and federal level. There are approximately 587,000 underground storage tanks (USTs) nationwide that store petroleum or hazardous substances.² Old gas stations are the most common site of USTs and the most common type of petroleum brownfield. Since 1994, over 45,000 fueling outlets have been closed in the United States.³ A persistent problem in communities throughout the country, these sites blight neighborhoods, can contaminate drinking water, and threaten community health. Despite the risks that petroleum brownfields pose, the unique distribution and size of petroleum brownfield sites can enable them to catalyze neighborhood revitalization. Since many are former gas stations, they generally occupy relatively small parcels distributed throughout cities and towns, along major roadways, and at intersections. These features make them attractive for a wide range of new developments, including pocket parks (small urban parks frequently created on a single parcel), restaurants, housing, and community centers. In addition, petroleum sites can be combined with other parcels, or assembled to enable larger projects.

Notwithstanding their potential, the challenges to successful redevelopment of petroleum brownfields are substantial. In addition to their size and the often high cleanup cost,⁴ site development is hampered by such factors as a fear of liability (due to a lack of liability protection, or a lack of awareness about liability protection), insufficient clarity and understanding about the cleanup process, uncertainty about costs associated with cleanup and redevelopment, and little or no collaboration and communication among different regulators and stakeholders. As a result, many sites remain underutilized and corrective action backlogs persist. For these reasons, developers and local, state, and federal governments are working to minimize the barriers and challenges presented throughout the redevelopment process.

Community Engagement: Stakeholder Education and Participation

Negative perceptions and stigmas related to brownfield sites can present a formidable barrier to successful remediation and reuse. Some of the tools for successful redevelopment discussed in this report, such as identifying and tracking brownfields locations and land-banking brownfield sites, can face significant community opposition absent efforts to explain the reasons behind, and intended benefits of, these programs. Sites labeled by government entities as “contaminated,” “in need of remediation,” or “land-banked for redevelopment” can easily sound negative to community audiences who may not have a full understanding of the brownfields redevelopment process.

Negative perceptions of brownfield sites are also often tied to the history of the sites, types of contamination, the contamination’s effects on the usefulness and safety of the sites, and the proximity to homes, schools, parks, and other areas important to local residents. States can help communicate information directly to local communities to help them understand the actual level of risks and the options available for appropriate end uses. Without educational efforts and opportunities for community involvement in brownfields redevelopment, NIMBYism or other forms of community opposition can occur.

In addition to addressing community concerns about brownfield sites, community involvement in redevelopment efforts can result in projects that are better suited to the needs and desires of local populations. Through information and education initiatives, community members can provide relevant input to decision-makers about site characteristics and community concerns. For support to be durable, the public must have comprehensive information about contamination and redevelopment impacts and plans, and must also understand the benefits that redevelopment may bring. Regular communication with project partners and the affected community can alleviate misunderstandings, build credibility, and help ensure success.

Recognizing the need for robust community engagement, states have begun to implement community outreach programs that function side-by-side with state technical and programmatic initiatives. Examples of state practices used to foster community participation are included throughout this report.

The State’s Role in the Brownfield Redevelopment Process

For both brownfields and petroleum brownfields, the redevelopment process has the same basic components: (1) site identification; (2) assessment of existing contamination; (3) economic assessment; (4) cleanup; and (5) site redevelopment. Site owners, prospective owners, lenders, technical services providers, insurers, local health and environmental agencies, and potential developers are all key participants in this process, making community engagement and diverse partnerships an important component of every step. Following is an outline of the critical roles that states play in supporting each stage of the redevelopment process.

Site Identification

The first step in the redevelopment process is to identify the site, determine its ownership, and begin planning for future reuse. This stage in the process requires sound information about site

characteristics, local community needs and challenges, and regulatory requirements. State agencies can compile useful databases cataloguing vacant sites, share relevant information about financial resources, explain the administrative and technical aspects of the redevelopment process, and describe the cleanup standards that apply to different land uses. As is the case throughout the redevelopment process, meaningful community engagement is an essential component in site identification and reuse visioning. To facilitate community involvement, states can engage community groups, gather relevant information, solicit input, and inform the public about redevelopment activities.

Contamination Assessment

After identifying the site and its potential reuse options, the second step is to determine the nature and extent of environmental contamination through completion of a phase I environmental assessment. While certain site characteristics may point toward a specific type of contamination, such as gasoline pumps at an abandoned gas station, an environmental assessment is still necessary. This is particularly true for petroleum brownfields, since a leaking underground storage tank cannot easily be identified by sight. Knowing the type and extent of environmental contamination will help determine intended use options and liability.⁵ To conduct the assessment, access to the site must be secured from the property owner or through other legal means. If the phase I assessment indicates that contamination is present and further study is needed, then a more in-depth phase II assessment should be conducted to identify the location, amount, and level of contamination on the site. States can provide support for such assessments through grants and information about federal resources and alternative forms of funding.

Financing and Partnerships

The third step is to develop partnerships and secure financing that can ensure the success of the site redevelopment. Securing funding can be more challenging for petroleum brownfields given that many federal grants – and in turn some state grants – require that a site be proven “low-risk” relative to other sites in the state. These grants may also contain different liability criteria for petroleum brownfields compared with non-petroleum sites. Many state and federal programs treat brownfields and petroleum brownfields separately in other ways as well, making sites with multiple contaminants especially challenging. These potential difficulties render the state’s role in financing even more critical. States can help facilitate financing and partnership formation by providing tax incentives and conventional sources of public funding, facilitating public-private partnerships, and helping to identify a variety of possible funding sources, such as potentially liable parties, grants, and guaranteed loans.⁶

Cleanup

The fourth step is the actual cleanup of the site. Following preliminary evaluations and environmental site assessments, a risk evaluation must be conducted and a remedial action plan developed to determine the selected cleanup methods and site-specific cleanup standards. Petroleum contamination often requires separate technical procedures performed by different implementing agencies.⁷ State agencies can work with potentially liable parties and technical service providers to remediate the site, reduce negative stigmas, and give communities

information about the process and the benefits of redevelopment. A cleanup is considered complete when a local, state, or federal regulatory closure is issued.

Redevelopment

The fifth and final step in the redevelopment process is the actual use-specific redevelopment of the site. In many instances, cleanup and construction are integrated steps in the redevelopment process.⁸ Once a property is ready for redevelopment, property owners and other interested parties (e.g. local or state governments, financiers, or champions of a particular land use) will market the site to obtain a return on their investment. States can support redevelopment by coordinating and streamlining permitting for construction projects, helping to advertise sites that are being marketed, and providing assurances that the site is suitable for its intended use.

Just as the steps of the brownfields redevelopment process overlap and at times blend together, so too do state roles and responsibilities. With this in mind, it is important for states to embrace an approach that addresses the redevelopment process holistically. While certain redevelopment stages are particularly critical for petroleum brownfields, states must support the entire redevelopment process in order to properly address petroleum contamination. The state tools and best practices highlighted in this report can yield benefits throughout this redevelopment process.

Notes:

¹ *Brownfields and Land Revitalization: Basic Information*, US Environmental Protection Agency, available at http://www.epa.gov/brownfields/basic_info.htm.

² *Underground Storage Tanks*, US Environmental Protection Agency, available at <http://www.epa.gov/oust/>.

³ The Association for Convenience & Fuel Retailing, *2013 NACS Retail Fuels Report* 11 (2013), available at http://www.nacsonline.com/NACS/Resources/campaigns/GasPrices_2013/Documents/CFR2013_FullReport.pdf.

⁴ Elizabeth Schilling and M. D'Angelo, *From Vacancy to Vibrancy: A Guide to Redeveloping Underground Storage Tank Sites through Area-Wide Planning* 4 (2012), available at <http://www.smartgrowthamerica.org/documents/from-vacancy-to-vibrancy.pdf>.

⁵ State of Washington Department of Ecology, *Resource Guide: Assistance for Redevelopment in Washington State* (2009), available at <http://www.ecy.wa.gov/pubs/97608.pdf>.

⁶ State of Washington Department of Ecology, *Guide to Leveraging Brownfield Redevelopment for Community Revitalization*, available at <http://www.ecy.wa.gov/pubs/1009054.pdf>.

⁷ Sandra Nichols and H.J. Diamond, *Stimulating Community Health and Wealth: The Opportunities Presented by Petroleum Brownfield and Vacant Property Redevelopment* 6 (2009), available at http://www.ecos.org/files/3897_file_November_2009_Green_Report.pdf.

⁸ US Environmental Protection Agency, *Brownfields Solutions Series: Anatomy of a Brownfields Deal* 4 (2006), available at http://www.epa.gov/brownfields/overview/anat_bf_redev_101106.pdf.

Chapter 2

Emerging Trends in Brownfields and Petroleum Brownfields Redevelopment

The trends identified in this section highlight practices that can help state petroleum brownfields programs meet their redevelopment objectives. Multi-site redevelopment planning is an emerging method to encourage large redevelopment projects that include petroleum brownfield sites. This planning approach leverages resources to promote redevelopment on a larger scale along transportation corridors, or on an area-wide level as a collection of clustered brownfield sites. Risk-based decision-making is another method that has been increasingly adopted by jurisdictions to remove barriers to redevelopment by enabling site remediation efforts to be tailored to a property's intended use. Another fast-growing trend has been the use of public-private partnerships to pool financial and technical expertise to stimulate redevelopment. All of these trends offer positive, replicable examples that can be used by states to increase the number of successful petroleum brownfield redevelopment sites in their communities.

Catalyzing Multi-Site Redevelopment

Because of the cost and complexity involved in brownfields redevelopment, the existence of a single brownfield site can serve as a barrier to redevelopment of an entire area. Government officials have recognized that the revitalization of brownfield sites is often critical to the successful redevelopment of a complete corridor or neighborhood area. As a result, city planners, economic development professionals, and real estate developers are widening the scope of brownfield redevelopment projects by incorporating such redevelopment into larger multi-site planning activities. For example, area-wide planning promotes remediation and redevelopment of multiple sites simultaneously, while corridor redevelopment incorporates transportation planning into the redevelopment scheme. These multi-site redevelopment approaches are particularly effective in catalyzing redevelopment of petroleum brownfield sites, which are often scattered in a patchwork of non-continuous lots in blighted areas. Also, because of the location of many petroleum brownfields (i.e. along transportation corridors, or clustered on corners), they often make good cornerstone sites.¹

Community Engagement: Building Public Support for Area-Wide Development Initiatives

Public participation is an integral component of a legitimate planning process and can increase a project's chance of success. Affected communities can provide information, energy, and grassroots support that tie together small or disparate projects to catalyze area-wide renewal, effectively multiplying the effects of individual redevelopment projects. Where area-wide planning efforts are undertaken, community members can provide much needed long-term public interest investment that can translate into the political will that makes projects happen. Through participation, a community develops a sense of ownership and investment in a project and its potential economic, environmental, and health benefits. Conversely, lackluster community engagement can damage a project's chance for success, if the local community feels the opportunities afforded for participation were not meaningful and squandered people's time, energy, and trust.²

Community engagement should include long-term, significant involvement by local stakeholders in planning decisions for an entire redevelopment area. By contrast, some current strategies involve community consultations around specific sites as a discrete step in the redevelopment process, rather than incorporating community opinion and decisions throughout the entire process.³ Such piecemeal consultation does not afford community stakeholders the opportunity to significantly affect outcomes, because major decisions about sites and their future uses are made prior to consultation.⁴

Community engagement throughout the redevelopment process has become a priority in many states. For example, New Jersey's state-wide master plan document, the New Jersey State Development and Redevelopment Plan, specifically identifies public "participation from families, neighborhoods, schools, civic-, community- and faith-based organizations, for-profit and nonprofit groups and businesses, municipalities, utilities, school districts, counties and state agencies" as a neighborhood revitalization planning priority.⁵ Making public involvement a priority in the planning process in New Jersey and elsewhere can ensure systematic community engagement in brownfields redevelopment.⁶

In light of this potential, the federal government is increasing its support for area-wide and corridor planning. The Partnership for Sustainable Communities – a joint effort by the U.S. Department of Transportation (DOT), U.S. Department of Housing and Urban Development (HUD), and the U.S. Environmental Protection Agency – is undertaking a wide range of programs that provide funding to communities for local planning efforts, including transportation, housing, and economic development activities.⁷ In 2010, the Partnership began offering \$409.5 million in grants and other assistance to meet its housing, transportation, and environmental goals. The Partnership's guiding objectives encourage the development of walkable neighborhoods and housing that minimize transportation distances. This focus on dense development and efficient land use is a natural fit to support the redevelopment of many of the small-footprint petroleum brownfield sites found in dense urban areas. In addition to its work through the Partnership, EPA's Smart Growth program provides grants directly to communities to engage in area-wide planning to address brownfields redevelopment challenges.⁸

Box 2: Federal Funding for Brownfields Area-Wide Redevelopment

The U.S. EPA granted pilot project funding to 23 communities in 2010-12 to develop area-wide plans that can inform the assessment, cleanup, and reuse of brownfields properties and help promote area-wide revitalization. Each recipient received up to \$175,000 in funds or direct technical assistance from the EPA to develop the area-wide plan over 24 months. The Agency has issued a new round of grants for 2013.

The program seeks to help underserved or economically disadvantaged neighborhoods confront environmental and public health challenges related to brownfields and create a planning framework to advance economic development and job creation. For more information, see http://www.ena.gov/brownfields/areawide_grants.htm.

Several states have institutionalized the area-wide planning approach by designating specific brownfield redevelopment areas and allocating redevelopment incentives to sites within these areas. This allows states to focus development efforts on those areas with the greatest need or that provide the greatest opportunities for success. In addition, by signaling that an area as a whole requires revitalization, such an approach may also reduce the stigma that sometimes attaches to individual brownfield sites. The following examples describe selected corridor planning and area-wide planning approaches that have been used successfully in Florida, Missouri, and New Jersey.

Florida's Revitalization Along the Tamiami Trail. In Florida, the Tamiami Trail Petroleum Brownfields Revitalization Initiative, launched in 2009, is applying a corridor approach to redevelopment along a 70-mile scenic stretch of Highway 41. The Initiative aims to eliminate the environmental risk to investment posed by the many petroleum brownfields along the trail, with the goal of fostering local economic development.⁹ Activities include planning and outreach meetings to support community involvement and development of a UST inventory along the route. In addition to local government entities and the EPA, partners within the Initiative include the Florida Department of Environmental Protection, the Florida Department of Transportation, nonprofit groups, businesses, environmental consultants, UST owners and operators, and cleanup contractors. The EPA has provided significant funding for the Initiative, including support for development of an inventory tool that can help local governments identify revitalization opportunities.¹⁰ In 2011, EPA awarded a \$700,000 brownfields petroleum assessment grant and a \$300,000 hazardous substance assessment grant to the Sarasota/Manatee Metropolitan Planning Organization. The funds are to be used to support site assessment, inventory development, monitoring, and community involvement in redevelopment efforts along the Tamiami Trail in Sarasota and Manatee counties.¹¹

Kansas City, Missouri's Green Impact Zones. The Green Impact Zone in Kansas City, Missouri is a promising corridor approach. A 150-square block area within the zone's boundaries has suffered from high unemployment (exceeding 50% in some areas), high rates of vacant properties (25% vacant lots and 10% vacant structures), and depressed home prices with frequent mortgage delinquencies. The Green Impact Zone strategy,

created by ten neighborhoods and community development organizations, aims to revitalize the region by improving housing, increasing employment and job training, installing a smart grid, designing an abandoned properties strategy, and building a policing and community services center. The program seeks to consolidate funding and policy expertise by working with ten existing community organizations, developing public-private partnerships, and applying for federal sources of funding. Although it is not a state-led effort, this redevelopment initiative may serve as a helpful example for states interested in enhancing urban corridor redevelopment initiatives.¹²

New Jersey's Brownfield Development Areas. The New Jersey Department of Environmental Protection's New Jersey Brownfield Development Area (NJBDA) Initiative has used a cluster or area-wide planning approach to accelerate brownfields redevelopment.¹³ Traditionally, areas with a high density of brownfields – known as clustered brownfields – have been risky for developers. Because the clusters include varying types of ownership and lot sizes, addressing these sites piecemeal meant that some lots would not be considered marketable and therefore were unlikely candidates for redevelopment. The NJBDA initiative takes a big-picture view of a cluster – one that includes petroleum brownfield sites¹⁴ – and seeks to develop an overall plan with the involvement of multiple state agencies.¹⁵

The NJBDA initiative works by designating communities affected by multiple brownfields as Brownfield Development Areas (BDAs).¹⁶ To receive BDA designation, the boundaries of the area must be consistent with the boundaries of a designated community or neighborhood; there must be broad community support for the BDA; and the establishment of the BDA must result in a benefit to public health, public safety, and the environment.¹⁷ Once a community is designated as a Brownfield Development Area, the NJBDA allows stakeholders within the community to participate in a streamlined redevelopment process by developing remediation and reuse plans for multiple properties simultaneously.

The NJBDA initiative also coordinates oversight and assistance from the state for all brownfields within the Brownfield Development Area. This coordinated oversight is managed by a single Case Manager from the NJDEP's Office of Brownfields Reuse. Such coordination helps to streamline the environmental investigation, cleanup, and compliance process. In addition, Brownfield Development Areas are eligible for increased funding under the state's Hazardous Discharge Site Remediation Fund.¹⁸ An additional \$2 million in grants per municipality per calendar year is available to perform assessment and remediation activities on contaminated property located within a designated BDA, thus increasing the annual funding limit per municipality up to \$5,000,000.¹⁹

Using Risk-Based Decision-Making

A fundamental component of state petroleum brownfield cleanup efforts is the development of effective decision-making frameworks and cleanup standards. Risk-Based Corrective Action (RBCA) is a decision-making process that helps states prioritize cleanups based on the relative threat level posed to human health and the environment.²⁰ This prioritization enables state agencies and site owners and operators to more efficiently allocate resources to sites requiring urgent action. Efficient cleanup is particularly critical for Leaking Underground Storage Tanks (LUSTs), where a substantial backlog of sites remains.²¹ In a 1995 directive, the US EPA's Office of Solid Waste and Emergency Response (OSWER) encouraged states to adopt risk-based corrective action to clean up leaking underground storage tanks.²² As a result of this guidance and the benefits of the risk-based approach, 33 states have adopted RBCA to address LUST sites.²³

Under the RBCA rubric, cleanup decisions are based on a site's intended use and the potential effects of that use on human health and the environment. RBCA allows sites to be remediated to the minimum level required to safely perform the intended use, which means that some sites are allowed to be reused despite the continuing existence of contamination. RBCA compares site conditions to target levels (put another way, the estimated risk values are compared to "acceptable" risk levels) and uses these comparisons to make corrective action decisions for each exposure pathway. Thus, RBCA focuses on the reduction or elimination of risk through both source reduction (removing contaminants) and blocking exposure pathways (prohibiting incompatible land uses). Under the approach, a site that is being remediated for a future housing development will be required to comply with a more stringent remediation requirement than a site intended for industrial purposes with very little human use. This method of tailoring remediation efforts to intended land uses allows for more efficient use of limited cleanup resources. While RBCA can be a very effective way to streamline petroleum brownfield cleanup processes, robust institutional controls are critical to ensure that any risk to human health or the environment is contained.²⁴ Land use must be limited to uses for which the applied cleanup standard is appropriate. In addition, engineering controls, such as manmade barriers and water flow control mechanisms, can be used to ensure safe reuse of sites that maintain some contamination.

Combined with stringent institutional controls, RBCA can be used to protect human health and environmental resources as effectively as other standard-based frameworks, while at the same time reducing cleanup costs and enabling UST implementing agencies to simplify and expedite their corrective action programs.²⁵ This potential cost-saving advantage, combined with US EPA's guidance, has induced states, such as Colorado and Texas in the examples below, to adopt risk-based corrective action on a broader scale.

Colorado's Risk-Based Corrective Action Approach to Storage Tanks. The Colorado Department of Labor and Employment's Division of Oil and Public Safety (OPS) has implemented risk-based regulations that govern the manner in which owners and operators of underground storage tanks must respond to chemical releases.²⁶ The program

uses risk-based criteria under a three-tiered evaluation approach to determine what further action, if any, is required to clean up a contaminated site. Depending on the extent of the contamination, the remediation process can be terminated through a No Further Action letter after completing Tier 1, Tier 1A, or Tier 2 evaluations.

A Tier 1 evaluation is required once the existence of contamination is confirmed. The Tier 1 evaluation includes identifying the source of the toxic substance, potential points of exposure (POEs²⁷) to the contaminant, and completed exposure pathways between sources of contamination and POEs. If there are any completed exposure pathways, the chemical concentration is compared to the Tier 1 Risk-Based Statistical Levels (RBSLs) published by OPS. If the contamination levels are below the Tier 1 RBSLs, the owner or operator may request a No Further Action letter.²⁸ If the levels exceed the Tier 1 RBSLs, the site owner or operator may choose to either proceed with a Tier 1A analysis and possibly Tier 2 analysis or to submit to a corrective action plan.²⁹

The risk-based nature of the approach is evident as a site proceeds through the Tier 1, Tier 1A, and Tier 2 evaluations. Tier 1 evaluations apply the most stringent assumptions in making cleanup determinations. During a Tier 1 evaluation, it is assumed that the contaminant source will exist indefinitely (implying a greater impact that requires more cleanup resources). If the site can satisfy the Tier 1 evaluation requirements, a No Further Action letter may be issued and no further remediation is required. If Tier 1 requirements cannot be satisfied, then the Tier 1A evaluation looks more closely at site-specific data (i.e., depth to subsurface soil source, depth to groundwater) to determine whether cleanup can be limited based on site characteristics without sacrificing effectiveness in reducing contamination. If this is not successful, then a Tier 2 evaluation takes an even closer look at the unique characteristics and risks of a contaminated site. Tier 2 evaluations also proceed under the assumption that the leaking tank will eventually empty out, thus potentially lowering the bar for required remediation from the more stringent Tier 1 and Tier 1A assumptions.³⁰ The authority to stop remediation efforts at different stages in the process allows Colorado to focus more of its efforts on the most contaminated sites.

Risk-Based Corrective Action at Work in Texas. The Texas Commission on Environmental Quality (TCEQ) has established a Risk-Based Corrective Action program to address remediation of contaminated sites, including sites with petroleum contamination.³¹ The RBCA program requires regulated entities to implement a risk-based decision-making approach to determine target cleanup levels.³²

The TCEQ regulations establish “target concentrations”³³ that set goals for implementing appropriate corrective action plans for contaminated sites. The regulations require target concentration requirements to be determined based on the remediation standards for residential land in most cases. Only in certain defined circumstances may the target concentration be based on commercial or industrial site use standards.

The Texas RBCA program uses two different site evaluation approaches to set remediation targets. “Plan A” is a relatively simple evaluation based on established default exposure assumptions and risk management considerations. As such, “Plan A” evaluations are appropriate for sites with lower levels of health and environmental risk.

“Plan B” is a more rigorous assessment that is employed in higher-risk cases. The Plan B evaluation may require institutional controls (such as land use restrictions or deed certifications) to ensure that exposure conditions do not change over time. This approach allows for flexibility by acknowledging that the level of appropriate investigation can vary by site, thus enabling Texas to focus its resources on the sites in greatest need of assistance.³⁴

Facilitating Public-Private Partnerships

The development of public-private partnerships is another method that has been used to leverage resources for brownfields redevelopment. Public-private partnerships can be especially helpful in marshaling resources to support large-scale area-wide or corridor-based redevelopment efforts where significant financial resources and long-term commitments are required for success. Additionally, public-private partnerships can allow local stakeholders to provide input into the remediation process, thus giving local governments and private entities greater insight into the needs of the community.³⁵ These kinds of partnerships can be constructed in a variety of ways, allowing the interested parties a high degree of flexibility in redeveloping the site in question.³⁶ Despite that flexibility, strong leadership is still necessary for the partnership to be a useful tool, as its success hinges on effective communication among parties and the coordination of their efforts.³⁷ While few examples exist of the use of public-private partnerships specifically for petroleum brownfield redevelopment, Milwaukee, Wisconsin’s 30th Street Corridor provides an excellent example of this approach.

Community Engagement: Public-Private Partnerships to Enhance Brownfield Education Activities

Providing adequate information to stakeholders about the benefits and challenges of revitalizing brownfields is an integral part of successful redevelopment projects. Colorado has taken a new approach to its efforts to educate stakeholders through a public-private partnership. It has provided funding to a nonprofit organization, the Colorado Brownfields Foundation,³⁸ to undertake widespread stakeholder outreach. The state works closely with the Foundation to conduct educational activities, including annual conferences, one-on-one technical assistance, and workshops focused on issues such as liability in real estate transactions.

Milwaukee, Wisconsin’s Public-Private Partnership Driving Corridor Redevelopment The City of Milwaukee’s 30th Street Corridor is a successful example of how a public-private partnership can support an area-wide approach to brownfields redevelopment. This five-mile stretch covers eleven different neighborhoods and suffers from significant industrial contamination, including petroleum brownfield sites. A public-private partnership between the private 30th Street Industrial Corridor Corporation (“Corridor Corporation”), the Wisconsin Department of Natural Resources, the U.S. Environmental Protection Agency, and the City of Milwaukee has fostered revitalization and private investment.³⁹ The partnership has fostered significant activity in the area, including the completion of Phase I and II environmental site assessments at approximately 50 properties and the redevelopment of several of those properties.

Through the partnership, the Corridor Corporation has taken steps to make the 30th Street Corridor an attractive place for businesses to relocate – by creating a Business Improvement District, marketing the area, actively recruiting new businesses, and providing technical assistance to businesses for a small annual membership fee. At the local government level, the City of Milwaukee created a Tax Increment Finance District to support real estate development.⁴⁰

Wisconsin has supported redevelopment of the 30th Street Corridor by providing up-to-date information regarding the status of the Corridor's sites through the Wisconsin Department of Natural Resources. As a targeted area under the state's Urban Reinvestment Initiative, the 30th Street Corridor has also received staff and financial resources from the state. At the federal level, the area has received support through a US EPA brownfield site assessment grant for hazardous substances, a brownfield site assessment grant for petroleum substances, a continuing site assessment grant, and several property-specific site cleanup grants. Over \$400,000 of these grant funds have gone directly to addressing petroleum contamination.⁴¹

Public-Private Partnerships Supporting Land-banking in Ohio. In Ohio, the Cuyahoga County Land Reutilization Corporation (Cuyahoga Land Bank) has successfully entered into partnerships with Wells Fargo, Bank of America, Fannie Mae, HUD, and JP Morgan Chase to facilitate the transfer of vacant properties (along with the cost of demolition, in some cases) to the land bank for redevelopment purposes.⁴² The Cuyahoga Land Bank has also reached out to help community nonprofit organizations. For example, working with the Cleveland Land Bank, the Cuyahoga Land Bank helped a nonprofit that supports people with intellectual and developmental disabilities locate a site for use as an urban farm. The farm will serve as a teaching tool as well as a source of healthy produce for the nonprofit group's clients.⁴³ While the Cuyahoga Land Bank was established to address vacant properties and blight precipitated by the foreclosure crisis rather than brownfields redevelopment, the tools used and lessons learned are applicable to any redevelopment context, including brownfields.

The examples discussed in this chapter illustrate new approaches to redevelopment that can drive brownfields and petroleum brownfields revitalization. The expanded use of area- and corridor-wide redevelopment, risk-based decision-making, and public-private partnerships can serve as models for other states seeking to successfully restore petroleum brownfield sites to productive use. The next chapter illustrates how these and other trends can be applied on the ground through the use of legal tools to promote brownfields and petroleum brownfields redevelopment.

Chapter 2: Recommendations for Action

Simplification:

Adopt risk-based corrective action in order to enable greater flexibility in brownfields and petroleum brownfields remediation.

Support:

Direct resources toward multi-site projects in order to support more comprehensive redevelopment of brownfield and petroleum brownfield sites.

Develop programs to encourage and remove any barriers to successful public-private partnerships that can jointly leverage resources for remediation and redevelopment.

Notes

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² *From Vacancy to Vibrancy* (note 1).

³ New Partners for Community Revitalization, Inc., *Smart Growth Outlook 2011: Challenges and Opportunities in Brownfields, Area-Wide Planning & Implementation* (2011), available at http://www.npcr.net/about_boa_brownfields/NPCRJournal_OnLinevF2.pdf.

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- ¹⁵ *The Challenge of Brownfield Clusters* (note 13).
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- ¹⁷ N.J.S.A. 58:10B-1 (2013); *2009 Brownfields Development Area Application Guidance*, New Jersey Department of Environmental Protection (2009), available at http://www.nj.gov/dep/srp/brownfields/bda/bda_application_guide.htm.
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- ²⁶ 7 COLO. CODE REGS. § 1101-14 (2012); Division of Oil and Public Safety, Colorado Department of Labor and Employment, *Petroleum Storage Tank Owner/Operator Guidance Document 1* (2005) available at <http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251616362102&ssbinary=true> (hereinafter “*OPS Guidance Document*”).
- ²⁷ “Point of exposure (POE) is the location at which a person or sensitive environment is assumed to be exposed to a chemical of concern.” 7 COLO. CODE REGS. § 1101-14 (2012).
- ²⁸ A No Further Action letter may be issued for a site once it has been remediated to “levels below all applicable RBSLs at the POEs.” The letter does not release the owner or operator from liability or

responsibility for future risks resulting from the present leak that were not known at the time the letter was issued.

²⁹ *OPS Guidance Document* (note 26), at 19-20, 26, and 39.

³⁰ COLO. CODE REGS. § 1101-14, 5-4 Site Characterization (LexisNexis 2012); *OPS Guidance Document* (note 26, Chapter 2), 28, 34-35.

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³² Texas Natural Resources Conservation Commission, *Leaking Storage Tank Problem: Risk-Based Corrective Action for Leaking Storage Tank Sites* (1994), available at https://www.iei.liu.se/affratt/tek_fak/ete322/material/1.129081/TNRCC_Risk_1994.pdf.

³³ 30 TEX. ADMIN. CODE § 334.202(24) (2012). “Target concentrations” are defined in this code section as “Site-specific and chemical-specific concentration goals for affected media (for example, soil, air, groundwater, surface water) that are protective of human health and safety, and the environment.”

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⁴² Cuyahoga County Land Reutilization Corp, *Wells Fargo, Bank of America donating properties to Cuyahoga Land Bank* (2011), available at http://www.cuyahogalandbank.org/articles/20110628_boa_wf.php.

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Chapter 3

Legal Tools to Promote Brownfields and Petroleum Brownfields Redevelopment

In 1993, the U.S. Conference of Mayors began a concerted push to focus on brownfields redevelopment. In 2010, the group conducted a survey that looked at brownfields redevelopment progress over the past 17 years.¹ Of the responding cities, 84% reported that they had successfully redeveloped brownfields in their community during this period. Despite this progress, 75 of the responding cities (76%) reported that 29,624 brownfield sites (45,437 acres) remained in their communities as of 2010.² These statistics highlight the progress that is possible as well as the continuing need for significant brownfields redevelopment efforts. To implement many of the successful programs and policy changes discussed in this report, amendments to state laws and regulations may be required. This section identifies several key legal tools that states and local government are using to enable and encourage brownfields redevelopment efforts, with a particular focus on the special challenges of petroleum brownfields redevelopment.

Expediting Foreclosure or Condemnation

The process of foreclosing on tax-delinquent properties can take months or even years in some cases. Communities often have a backlog of properties on their tax foreclosure lists due to a lack of resources to pursue foreclosure actions. Even after a property is foreclosed upon, additional management is needed to maintain the property until it is sold and to shepherd it through the state and local processes required for a tax sale. Private purchasers interested in acquiring foreclosed property can encounter significant waiting periods.

Granting authority to local governments to transfer foreclosed properties into private hands for redevelopment as expeditiously as possible can help minimize the delays and added expense that can slow the return of contaminated parcels to productive use. State foreclosure or condemnation procedures are established through statutory provisions that in some cases can be burdensome and time-consuming, or that can fail to give the state needed authority. Several states have recognized that the foreclosure and condemnation process can be expedited by making targeted changes to shorten timeframes or provide other authority that was lacking under their existing statutory schemes. The examples below illustrate some approaches that states are taking to facilitate the transfer of foreclosed brownfield properties.

Expediting Transfer of Environmentally Contaminated Tax-Delinquent Properties. In 2000, Wisconsin developed an expedited process to enable the transfer of tax-delinquent properties directly to third parties who agree to remediate them.³ The resulting law allows the new owner to obtain fee simple title to the foreclosed property, once an environmental assessment is completed by the Wisconsin Department of Natural Resources and the assignee enters into a cleanup agreement. The law enables counties

and the City of Milwaukee to transfer property to a third party without ever needing to take title to the property themselves. Instead, the foreclosing local government can transfer properties directly to third parties by assigning the right to take over the foreclosure judgment on the parcels. Wisconsin has developed eligibility checklists⁴ for potential buyers to complete in order to streamline the process as well as a model agreement.⁵ This simple statutory addition removes an entire layer of administrative steps that a city generally has to take before a foreclosed property can be transferred to a third party.⁶

Accessing Properties to Conduct Site Assessments. In some states, there is no legal mechanism in place to allow governments to access brownfield sites in order to conduct site assessments before taking control of vacant properties. Without knowing the extent of contamination, it can be difficult to assess a property's fair market value. At the same time, private property is protected from unreasonable government intrusion by the Fourth Amendment and governments must comply with existing regulatory frameworks in order to gain access to brownfield sites without triggering lawsuits. In response to these competing concerns, several states have enacted specific statutes that allow agencies to access contaminated sites for the purpose of completing an assessment before acquiring the property.

In Connecticut, state law allows municipalities to access private property to perform an environmental site assessment.⁷ A municipality may enter a site if: the owner cannot be located, the property has a lien for delinquent taxes, an eminent domain action has been filed, the city council or other appropriate municipal legislative body finds that an investigation is in the public interest to determine whether the property should be included in redevelopment or remediation planning, or if the property presents a potential public safety hazard or a risk to the environment. The statute requires the municipality to provide notice to the owner prior to entry and provides a procedural mechanism for the owner to object.

As part of its brownfield restoration efforts, Virginia enacted a statutory provision allowing any local government or agency to petition the state courts for an order allowing access to an abandoned brownfield site. For a petition to be successful, the government must first have made a good-faith effort to locate the owner or other responsible party, and it must have a plan to investigate or remediate existing contamination that meets all state and federal legal requirements.⁸

In Wisconsin, brownfield sites can be accessed after giving notice to the owner, if the entry is needed to prevent increased damage from contamination or to ascertain compliance with cleanup requirements.⁹ However, the statute does not clearly outline what constitutes sufficient notice. It does provide an exception to the notification requirement for access needed in an emergency situation.

Illinois allows municipalities to access abandoned or unsafe properties to test for hazardous substances if there is some evidence suggesting that contamination may be present.¹⁰ State law also allows a municipality to put a lien against a property to cover its

costs for environmental inspection and/or remediation, thus setting the stage for a foreclosure action by the city in the event of nonpayment.

Shortening the Timeframe for Transferring Ownership of Tax-Foreclosed Properties. Lawmakers in Michigan have faced a complicated tax foreclosure process and a crisis of urban decline. To address this, the Michigan legislature enacted a revised tax foreclosure law in 1999 that eliminated the state's systemic barriers to efficient and effective redevelopment.¹¹ Under the old law, the foreclosure process took from 4 to 7 years, after which properties remained encumbered by tax liens and lacked a clear title. These complications discouraged many potential new owners. The revised law allows the foreclosure process to be completed within 1-2 years, resulting in a clear title for the county without any tax liens. These changes have been critical to the success of land-banking in Michigan and, in turn, the reuse and redevelopment of vacant properties, brownfields, and petroleum brownfield sites.¹²

Securing Land-Banking Authority

The status of the real estate market is a major factor in determining the financial feasibility of a given remediation and redevelopment project. To avoid potential losses associated with having to purchase or sell remediated properties when market values are at undesirable levels, states may consider establishing systems for holding such properties until the market is stronger. This can be done through public authorities specifically established for this purpose, or through existing authorities with related responsibilities (such as community redevelopment agencies). The most common approach is through the creation of land banks.

A land bank is a public entity that can acquire and manage vacant properties.¹³ After assuming control of properties through means such as tax foreclosures, a land bank will prepare the sites for redevelopment with the aim of turning them into productive uses. The duties of a land bank generally include assuming the title to tax-delinquent properties and then securing, rehabilitating, and transferring those properties to responsible developers or homeowners. Policymakers are increasingly considering the land bank model to address the problem of vacant and abandoned properties in cities with an abundance of vacant housing. Land banks have been effectively used as a tool to overcome the failed market conditions that result in underutilized properties.¹⁴

Land banks serve several functions. They can act as a holding mechanism for tax-delinquent properties inherited by local governments. Ultimately, they can support neighborhood revitalization by overcoming market inefficiencies (such as excess supply and inelastic property prices¹⁵) and by fostering beneficial uses. These include private uses that increase the tax base, nonprofit uses such as affordable housing, and public uses such as green spaces.¹⁶ Although land banks exist at the level of local government, state legislation is often key to enabling them.

Land-banking authority may be assigned to an existing public or quasi-public entity or tasked to a new authority created for this purpose. Institutionalizing the process allows the oversight bodies to receive the full authority necessary to acquire, manage, and ultimately transfer such properties. It also ensures that they will continue to work towards specified goals in the long

term, providing a locally-based and community-driven direction for publicly endorsed redevelopment. The following examples highlight state legislation to promote the use of land banks in brownfields redevelopment.

State Policy Enabling Land Banks. In 2004, Michigan passed the Land Bank Fast Track Act,¹⁷ which enabled the creation of city and county land bank authorities. Following passage of this legislation, Michigan's Land Bank Fast Track Authority and Board was established as the nation's first state-wide Land Bank Authority. For fiscal years 2005 and 2006, Michigan's new Land Bank Authority returned approximately 570 properties to productive use and achieved total revenues of \$3.19 million.¹⁸ Numerous county land banks now exist in Michigan, including the Genesee County Land Bank Authority (GCLBA). The GCLBA uses Michigan's new tax foreclosure law (discussed in the previous section) as a "constructive community development tool" to acquire abandoned land through the streamlined foreclosure process, avoid selling the land at auction, and take the steps necessary to determine the best use of the land. The GCLBA has acquired over 4,000 residential, commercial, and industrial properties since 2002. Its accomplishments include: 2,350 foreclosures prevented; 900 structures demolished; 2,300 sites maintained; 550 properties entered into the state's Clean and Green program; 26 single family homes rehabilitated; 16 infills completed (with 38 more initiated); and 600 tons of debris removed. In addition, over 500 parcels have been transferred through the Land Bank's side lot program, where homeowners are offered the opportunity to purchase adjacent vacant parcels in order to increase their yard size.¹⁹

County-Level Land-Banking Authority. Similar to Michigan, Ohio modernized its land bank legislation through the passage of updated land-banking bills in 2009.²⁰ Prior to the 2009 legislation, only local governments were permitted to establish land banks in the state. These land banks lacked authority to acquire real-estate-owned properties²¹ and to contract to maintain inventoried parcels. In addition, they did not have operating budgets and staff and faced a substantial risk of incurring liability. Recognizing these problems, the new law authorizes the creation of County Land Reutilization Corporations (CLRCs) – nonprofit community improvement corporations that "help acquire, reclaim, rehabilitate, and reutilize vacant land." Under the new law, CLRCs have the authority to address vacant and abandoned housing on a regional basis; tax foreclosure has been streamlined as a method of property acquisition; funding can be secured without new taxes; and the nonprofit corporations remain legally distinct from local governments.²²

Building on the successes of the first land banks, the land-banking trend is now accelerating. In 2011, New York adopted a Land Bank Act that established Empire State Development as the agency responsible for regulating local land banks and implementing the new law.²³ In May 2012, five municipalities that had applied to create local land banks in the first round of applications were approved by Empire State Development.²⁴ Meanwhile, Pennsylvania's legislature passed a land-banking bill that was signed into law in October 2012.²⁵

Establishing Liability Protection

Liability protection can catalyze petroleum brownfields redevelopment by assuaging developers' concerns about ongoing liability for contamination. States may provide liability protection to interested parties, including government entities (such as municipalities), quasi-government bodies (such as redevelopment authorities and community development corporations), and private parties (owners, operators, down gradient or downstream property owners, and tenants), as well as charitable trusts. Some level of liability protection has been adopted by almost every state and is now well established as a best practice for brownfields development in general and petroleum brownfields sites in particular.

In most states, the laws provide that prospective brownfields owners can protect themselves from future liability by assessing the environmental conditions of a property prior to acquisition. Under the federal brownfields program and many state efforts, this is referred to as conducting "all appropriate inquiries."²⁶ The appropriate assessment of environmental conditions on a property can secure a prospective owner's status as an innocent landowner²⁷ (who did not discover the contamination) or as a bona fide prospective purchaser (who is aware of the contamination prior to purchase but has no relationship with any responsible parties).²⁸

Status as an innocent purchaser or bona fide purchaser is often a prerequisite for obtaining exemption from state and federal liability and qualifying for state financial assistance programs. Once owners or operators clean up a site to the required standard, states commonly issue either a Covenant Not to Sue (CNS), a Closure Letter, or a certificate stating that no further action is required.²⁹ Although these documents do not protect owners and operators from federal liability, compliance with state cleanup requirements that are more stringent than federal requirements will often result in federal liability protection.³⁰ Following are examples of liability protection methods used by different states.

Florida: Releasing Liability Upon Completion of Remediation Requirements. In Florida, any "Person Responsible for Brownfield Site Rehabilitation" who satisfies a site-specific Brownfield Site Rehabilitation Agreement with the Florida Department of Environmental Protection is released from further liability for remediation or rehabilitation of that site. Upon completion of remediation obligations, the state issues a site rehabilitation completion letter or a No Further Action letter.³¹

Ohio: Liability Protection for Voluntary Action. Brownfield owners in Ohio can obtain liability protection through participation in the Ohio EPA's Voluntary Action Program. Upon successful remediation, a Certified Professional³² issues a No Further Action letter detailing the removal, remediation, and mitigation activities completed at the property. The Ohio EPA then issues a Covenant Not to Sue for the property, which states that current conditions at the site do not warrant further investigation by the state or additional cleanup, and releases the owners and operators from any future requirements regarding cleanup or investigation.³³ The Covenant does not guarantee liability protection for releases that occur after the No Further Action letter is issued, natural resource damage claims, costs arising out of EPA action, or costs arising out of response to an imminent and substantial threat.³⁴

Indiana: Written Assurance of Protection. In Indiana, written assurances are issued to statutorily exempt owners and to owners who have completed cleanups. The Indiana Department of Environmental Management issues either a Comfort Letter or a Site Status Letter to qualified brownfield owners and operators.³⁵ Comfort Letters are issued to parties who are statutorily exempt³⁶ under Indiana law, whereas Site Status Letters are issued to owners and operators whose site cleanups meet criteria established by the Department of Environmental Management.

To obtain either of these letters, owners and operators must satisfy the following conditions:

- Owners or operators cannot have caused or contributed to, or have any ownership interest in, any entity that caused or contributed to the release of contaminants; and
- There must be no alternative basis for liability (as generator, disposer, or transporter); and
- Owners or operators must accept the Department's recommended land use restrictions, if applicable.

Washington: State-Controlled Cleanup. Washington offers brownfield owners four cleanup options – two individual options and two state-controlled options – under the state's Model Toxics Control Act. One of the state-controlled options, a Department of Ecology-supervised cleanup with settlement, allows participants to settle all liability issues prior to beginning the cleanup. Owners and operators who proceed under this option sign a Consent Decree, which settles liability with the state and also provides protection from third-party contribution claims. The Consent Decree also cedes control of the cleanup to the Department of Ecology, which then supervises and approves the sufficiency of the cleanup.³⁷

Virginia: Remediation Certificates that Run with the Land. Virginia's brownfield owners and operators can achieve liability protection through the state's Voluntary Remediation Program.³⁸ Successful participation results in the issuance of a "certificate of completion" that runs with the land, thus protecting from liability not only current owners, but all future purchasers, owners, and operators. Additionally, Virginia lawmakers and EPA administrators have agreed that participants in the Voluntary Remediation Program will be protected against federal liability under Superfund.³⁹

Creating Incentives to Obtain Insurance

Brownfields cleanup costs are often difficult to predict, injecting uncertainty and risk into redevelopment projects. Many redevelopers choose not to purchase insurance, despite the risks of failed or unexpectedly costly remedial actions. This failure can be attributed both to a lack of understanding of the scale of potential liability and to a lack of awareness of the range of insurance products that are available.⁴⁰ To address these issues, some states are developing

strategies to make brownfields insurance more available and to provide extra incentives to redevelopers to purchase coverage, which can facilitate greater private investment in redeveloping brownfields.

Wisconsin: Making Brownfields-Specific Insurance More Easily Available. Under the Wisconsin Brownfields Insurance program, the Wisconsin Department of Natural Resources (WDNR) has authority to work with private insurers to make environmental insurance more easily available.⁴¹ WDNR selected Chartis Environmental as the program's insurance provider. Chartis offers a 10% discount on its Pollution Legal Liability Select, a brownfields insurance policy, which is available to developers, businesses, and local governments. WDNR pre-negotiated certain coverage enhancements for the policy, as well as a streamlined underwriting and negotiation process. The policy covers site investigation and cleanup, third-party claims, business interruptions, disposal site pollution, and material transportation costs.⁴² Parties can apply after completing Phase I and II environmental assessments. While this program has to date received very few applications, it may still serve as a model for providing accessible brownfields insurance.

Ohio: Discounted Insurance for Remediation. In 2009, Ohio EPA signed a memorandum of understanding with three insurance companies to offer discounted environmental insurance to parties remediating sites through the state's Voluntary Action Program.⁴³ The companies – ACE Environmental Risk, American Insurance Company, and Navigator's Specialty Insurance Company – agreed to offer eligible parties a 10% discount from standard premium rates. In return, Ohio EPA agreed to review assessment information, thereby reducing the amount of review required by the insurance carriers' underwriters.⁴⁴

Massachusetts: Brownfield Redevelopment Fund. Massachusetts uses a Brownfield Redevelopment Access to Capital (BRAC) fund to subsidize the cost of environmental insurance programs. The BRAC program was created under the Brownfields Act of 1998,⁴⁵ and is managed by the Massachusetts Business Development Company.⁴⁶ The BRAC program helps projects obtain funding by providing state-subsidized, volume-discounted environmental insurance. Insurance coverage is available from several private insurers including ACE, Chartis, Chubb and XL, and includes a range of coverage options such as Cleanup Cost Cap, Pollution Legal Liability, and Secured Creditor coverage.⁴⁷

New York: Public Commitments to Broaden the Availability of Environmental Insurance. Both municipal and state authorities in New York have made commitments to make environmental insurance more broadly available. Through its PlaNYC,⁴⁸ New York City dedicated greater resources to making environmental insurance more readily available to brownfields projects⁴⁹ and it has been developing an environmental insurance grant program.⁵⁰ The New York State Brownfield Cleanup Program also offers tax credits that can be applied to environmental insurance.⁵¹ In addition, a separate environmental remediation insurance credit program provides tax credits to apply against costs paid for environmental remediation insurance premiums.⁵²

Establishing Institutional Controls

Institutional controls (ICs) are the legal and administrative measures used prior to, during, or after remediation to reduce risks at sites where contamination levels require allowable property uses to be restricted.⁵³ ICs help ensure that allowable uses are maintained so as to prevent exposure to contaminants that remain on-site. ICs also allow the level of cleanup required on a site to be adapted to its anticipated use, thus enabling risk-based remediation. When the intended use of a property is known up front, the cleanup can be tailored to the standards associated with that use. For example, ICs may limit the type of structures and facilities that may be built on a given site and how they may be used, and they may impose restrictions upon the use of groundwater. ICs may also restrict excavation or other activities that could expose people to contamination.

To understand how ICs work, consider the different restrictions that would be needed for the various potential uses of petroleum brownfield sites. The small sizes of many petroleum sites make them good candidates for uses such as commercial urban agriculture, community garden plots, pollinator preserves not intended for human use, or pocket parks. Each of these uses would likely require a different level of remediation to ensure protection of public health.

States can enable ICs through a variety of legal mechanisms. Land use controls such as restrictive covenants and covenants that run with the land can be used to limit property uses. Similarly, government controls, such as requiring certificates of completion and informational devices such as advisories, can be effective ways to implement ICs.⁵⁴ The Uniform Environmental Covenants Act (UECA) was created by the National Conference of Commissioners on Uniform State Laws to help states pass comprehensive legislation enabling the use of effective ICs. Among other things, the Act addresses both federal- and state-led cleanups, ensures covenants will survive foreclosure and similar processes, provides prospective purchasers of contaminated properties with constructive notice about existing covenants, and explains how to terminate and/or amend aging covenants.⁵⁵ Currently, 23 states, the District of Columbia, and the U.S. Virgin Islands have adopted the UECA.⁵⁶ Other states and communities, such as Wisconsin, have not adopted the UECA but have independently established legislation and tracking mechanisms for institutional controls.⁵⁷

Examples of ICs in action can be seen in states and local communities around the country:

Washington: In addition to approving the use of well-known land use controls, such as restrictive covenants, Washington's regulations allow the use of physical or educational measures as ICs in some circumstances where health and environmental risks are not extreme. Physical measures can include fencing an area or otherwise restricting public access, while educational measures include using posted warnings, signs, targeted mailings, or health advisories.⁵⁸

California: California is another state that has its own IC regulatory system in place.⁵⁹ Building on the state law system, the community of National City has instituted a program to address long-term stewardship concerns to ensure that properties with ICs are tracked and easily identified early on in any development process. The city has developed

a Land Use Control Implementation Plan that ties permitting activities to information about long-term stewardship. Through this program, the state regulatory agencies retain their usual responsibility for selecting, implementing, monitoring, and enforcing the institutional and engineering controls on a property; however, the city takes a more proactive, frontline role in communicating the existence of these regulatory actions to permit applicants. The city is also working on a strategy to standardize IC property records and is developing a website⁶⁰ that provides easy access to environmental and redevelopment-related information, including ICs within National City.

New York: New York has state laws to regulate the use of ICs, including deed restrictions, environmental easements, and the posting of environmental warning notices. New York’s Department of Environmental Conservation has developed a program guide to direct the proper use of ICs.⁶¹ At the local level, similar to National City in California, the city of Rochester, New York has also initiated a system to track properties that have ICs in place⁶² under New York state law. Rochester’s “Building Permit Flagging System” identifies or “flags” parcels with ICs within the city’s main building information system database, beginning when a site cleanup plan is developed and implemented. Linking the flagging system to the existing City permit application process makes IC-flagged properties immediately visible to developers looking at potential redevelopment sites.

Regardless of the type of IC enacted on a specific site, successful states monitor and enforce them to ensure long-term compliance and stewardship.⁶³ An emerging best practice by states is to coordinate with local governments to ensure that data about a site, its ICs, and its proposed new uses is uniformly collected, processed, and analyzed.

Establishing Cost Recovery Mechanisms

When a state undertakes corrective action to clean up a contaminated site, state or federal law usually requires the acting agency to recover the costs associated with the investigation and remediation.⁶⁴ For example, Oregon’s state laws require the Department of Environmental Quality to recover from responsible parties all reasonable direct and indirect costs incurred while remediating LUST sites.⁶⁵ Wisconsin has also been experimenting with a range of cost recovery methods, as described below.

State Efforts to Recover Federal Cleanup Costs. Wisconsin has the legal authority to seek cost recovery to offset the use of state taxpayer funds for the investigation and cleanup of contaminated properties. Since 1992, the Remediation and Redevelopment Program (RR Program) of the Wisconsin Department of Natural Resources (WDNR) has recovered nearly \$22 million in cleanup funds for the state. In addition to traditional cost recovery avenues – via enforcement actions against responsible parties or through state petroleum inspection fees, for example – the RR Program also seeks to recover costs for spill cleanups, including federal dollars spent. In 2011, the RR Program recovered more than \$111,000 used for cleanup costs provided by the Oil Spill Liability Trust Fund⁶⁶ for two spills in northern Wisconsin.⁶⁷

Cost Recovery from Bankrupt Companies for Abandoned Sites. In 2008, the WDNR launched an effort called the Wisconsin Plant Recovery Initiative to recover costs from bankrupt companies or businesses with potentially contaminated properties. With the increase in shuttered factories and other facilities due to the recession, some abandoned contaminated sites have not been addressed. Instead of ignoring these eyesores and leaving communities with a new generation of brownfields and petroleum brownfields, the WDNR is actively monitoring bankruptcy filings and pursuing action on sites with documented or perceived contamination, thus protecting human health and the environment while saving taxpayer dollars.⁶⁸ Because these cost recovery efforts occur at the time of bankruptcy filings, rather than months or years after responsible entities cease to exist, the program has encountered significant success. Through this initiative, the WDNR has recovered approximately \$14 million for investigation and remediation activities since 2008.⁶⁹ These improved cost recovery efforts free up state funds for other environmental actions, prevent remediation costs from being passed on to local governments, and address contamination issues before pollution spreads and the costs of cleanup increase.

Petroleum Environmental Cleanup Fund. Wisconsin's Petroleum Environmental Cleanup Fund Award, which is funded through a \$0.02/gallon state tax on petroleum, reimburses parties for costs associated with cleaning up eligible petroleum product systems. After the removal or replacement of Leaking Underground Storage Tank (LUST) systems, owners of eligible petroleum product systems receive a refund for a portion of the remediation costs from the Fund. Eligible petroleum storage tank systems include those holding gasoline, gasoline-alcohol fuel blends, kerosene, fuel oil, burner oil, diesel fuel, and used motor oil.⁷⁰

As this chapter demonstrates, states can employ a host of legal tools to help facilitate brownfields and petroleum brownfields cleanup and redevelopment. Taken together, these tools address inefficiencies (both in terms of costs and time) in the cleanup and redevelopment process, and can be used to maximize the effectiveness of actions taken by states, localities, private actors, and nonprofit groups to address brownfields and petroleum brownfields contamination.

As will be discussed in the next chapter, when developing new authorities or refining existing authorities, states and other levels of government should try to avoid creating an unnecessarily complex legal framework. This is particularly important when addressing the unique challenges of petroleum brownfields. The next chapter examines how states can streamline the laws and regulations governing petroleum brownfield cleanups.

Chapter 3: Recommendations for Action

Simplification:

Review state laws and regulations for opportunities to expedite foreclosure and condemnation processes.

Support:

Consider whether legislation enabling land-banking is appropriate for your state.

Enhance liability protection for parties who are not responsible for pollution and who are willing to assume responsibility for remediation and redevelopment.

Review the availability of brownfield-targeted environmental insurance in your state and consider whether purchase incentives or discount programs would encourage greater insurance use.

Develop legislation to enable cost recovery for investigation and remediation of contaminated sites.

Information:

Develop methods to collect and maintain, in a statewide database, detailed information about the use of institutional controls on brownfield sites. Use this information to develop monitoring and enforcement mechanisms to ensure long-term compliance.

Notes

¹ U.S. Conference of Mayors, *Recycling America's Land: A National Report on Brownfields Redevelopment*, Vol. IX, 7 (2010), available at <http://www.usmayors.org/pressreleases/uploads/November2010BFreport.pdf>.

² A total of 99 cities responded to this survey. Of the 99 respondents, 67 cities provided statistics from 1993 identifying 11,824 brownfield sites (15,228 acres), while 75 cities identified 29,624 sites (45,437 acres) in 2010. Previous survey volumes have reported even more sites and acreage. In volume VII, 150 cities responded and identified 1,578 sites (16,947 acres) and in volume VIII, 116 cities responded by identifying 2,667 sites (11,096 acres). In each of these surveys, different cities chose to respond. This makes any comparison between the reported numbers of sites and acreage year-to-year to determine redevelopment progress ineffective.

³ Wis. Stat. § 75.106 (2012).

⁴ City of Milwaukee, *Buying a Tax Delinquent Brownfield '75.106 Deal' CHECKLIST*, available at <http://city.milwaukee.gov/ImageLibrary/Groups/cityDCD/brownfields/App75106.pdf>.

⁵ Wisconsin Department of Natural Resources, *Model 75.106 Agreement* (2005), available at <http://dnr.wi.gov/topic/Brownfields/documents/mod75-106agrmt.pdf>.

⁶ Wis. Stat. § 75.35 (2012).

⁷ Conn. Gen. Stat. § 445-22a-133dd (2011).

⁸ Va. Code Ann. § 10.1-1236 (2012).

⁹ Wis. Stat. § 292.11(8) (2012).

¹⁰ 65 Ill. Comp. Stat. § 5/11-31-1 (2012).

¹¹ Mich. Comp. Laws §§ 211.78 - 211.78o (2012).

¹² Genessee County Land Bank, *About Us*, available at <http://www.thelandbank.org/aboutus.asp>.

¹³ Michigan Association of Planning, *Battling Foreclosures and saving neighborhoods: What can local governments do? Smart Growth Tactics*, Issue No. 44 (2008), available at http://www.planningmi.org/downloads/issue_44_battling_foreclosures.pdf (hereinafter "*Smart Growth Tactics*").

¹⁴ Thomas J. Fitzpatrick IV, Research Department of the Federal Reserve Bank of Cleveland, *Understanding Ohio's Land Bank Legislation* (2008), available at <http://www.clevelandfed.org/research/policydis/pdp25.pdf> (hereinafter "*Understanding Ohio's Land Bank Legislation*"); see also Matthew J. Samsa, *Reclaiming Abandoned Properties: Using Public Nuisance Suits and Land Banks to Pursue Economic Redevelopment*, 56 Clev. St. L. Rev. 189 (2008).

¹⁵ Frank S. Alexander, *Land Banking as Metropolitan Policy* 7 (2008), available at http://www.brookings.edu/~media/research/files/papers/2008/10/28%20mortgage%20crisis%20alexander/1028_mortgage_crisis_alexander (hereinafter "*Land Banking as Metropolitan Policy*").

¹⁶ *Smart Growth Tactics* (note 13), at 4-5; *Land Banking as Metropolitan Policy* (note 15), at 3, 6-7.

¹⁷ Mich. Comp. Laws §§ 124.751-124.774 (2012).

¹⁸ Michigan Department of Labor and Economic Growth, *Michigan Land Bank Fast Track Authority: Biannual Report Fiscal Years 2005 and 2006* 4 (2007), available at http://www.michigan.gov/documents/cis/MLBFTA_Submitted_Biannual_Report_Fiscal_Years_2005_and_2006_198803_7.pdf (hereinafter "*Michigan Fast Track*").

¹⁹ *Smart Growth Tactics* (note 13), at 5.

²⁰ Ohio Rev. Code § 349.01 (2012).

²¹ Real estate owned (REO) properties are a class of property owned by a lender, typically a bank, government agency, or government loan insurer, following an unsuccessful sale at a foreclosure auction.

²² *Understanding Ohio's Land Bank Legislation* (note 14).

- ²³ N.Y. N.P.C Law § 16-1600 (2012). For an explanation of the law, see New York State Association of Counties, *New York's Land Bank Act* (2011), available at <http://www.nysac.org/legislative-action/documents/NYSACLandBankBriefReport.pdf>.
- ²⁴ New York Governor's Press Office, *Governor Cuomo Announces Five Municipalities Approved to Create Land Banks* (2012), available at <http://www.governor.ny.gov/press/05172012-Five-Municipalities-Approved-Create-Land-Banks>.
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- ²⁶ 40 C.F.R. Part 312 (2013); Cal. Health & Safety Code § 25395.80 (2012).
- ²⁷ 42 U.S.C. § 9601(35)(A)(i); § 9607(b)(3) (2012).
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- ²⁹ Environmental Law Institute, *A Guidebook for Brownfield Property Owners*, 45 (1999); Environmental Law Institute, *An Analysis of State Superfund Programs: 50-State Study, 2001 Update*, 40, 43 (2002) (hereinafter "*An Analysis of State Superfund Programs*").
- ³⁰ US Environmental Protection Agency, *CERCLA Compliance with State Requirements* (1989), available at www.epa.gov/superfund/policy/remedy/pdfs/92-34205fs.pdf.
- ³¹ Fla. Stat. § 62-785.150 (2012); also see the memorandum of understanding between Florida and the US EPA addressing brownfield site cleanup coordination, available at http://www.dep.state.fl.us/waste/quick_topics/publications/wc/brownfields/moa/text_October2005.pdf.
- ³² To qualify as a Certified Professional under Ohio law, a person must: hold a bachelor's degree in a scientific field such as biology, chemistry, engineering, or toxicology; have eight years of experience related to cleanup, including three years as a project manager or supervisor; possess good moral character; possess required professional competence and knowledge; and undergo training by the Ohio EPA within one year of application for certification. For further information, see Ohio Environmental Protection Agency, *How to Participate as a Certified Professional in the Voluntary Action Program* (2009), available at <http://epa.ohio.gov/portals/30/vap/docs/fact6.pdf>.
- ³³ Ohio Environmental Protection Agency, *Ohio Brownfield Redevelopment Tool Box: A Guide to Assist Small and Rural Communities in Redeveloping Ohio's Brownfields* (2007), available at [www.epa.state.oh.us/portals/30/SABR/docs/Ohio Brownfield Toolbox.pdf](http://www.epa.state.oh.us/portals/30/SABR/docs/Ohio%20Brownfield%20Toolbox.pdf).
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- ³⁶ Statutorily exempt parties include certain government entities; creditors, lenders and fiduciaries; parties who were not the statutory owner of an underground storage tank; parties who satisfy IDEM's "Property Containing Contaminated Aquifers" policy requirements; and those who have no contractual relationship, as defined by CERCLA and interpreted by IDEM, with those who caused the contamination.
- ³⁷ *Voluntary Cleanup Program*, State of Washington Department of Ecology, available at www.ecy.wa.gov/programs/tcp/vcp/vcp2008/vcpOtherAdminOptions.html#EcologySupervised.
- ³⁸ *About Brownfields*, Virginia Department of Environmental Quality, available at <http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/RemediationProgram/Brownfields/AboutBrownfields.aspx>.
- ³⁹ Virginia's liability protection program is equivalent to those found in most states. For more information, see the discussion regarding liability limitations and grounds for reopening liability included in *An Analysis of State Superfund Programs* (note 29).
- ⁴⁰ Sarah S. Hollis, T. Lambert, and P.B. Meyer, *Utilizing Environmental Insurance for Brownfield Redevelopment Practice Guide #4* (Fall 2003), available at http://louisville.edu/cepm/publications/practice-guides-1/PG4%20-%20Environmental%20Insurance.pdf/at_download/file.
- ⁴¹ Wis. Stat. § 292.53 (2012).

- ⁴² *Wisconsin Brownfields Insurance Program (WBIP)*, Wisconsin Department of Natural Resources, available at <http://dnr.wi.gov/topic/Brownfields/wbip.html>.
- ⁴³ Ohio Environmental Protection Agency, *Ohio EPA Announces Environmental Insurance Program* (2009), available at <http://www.epa.ohio.gov/portals/47/nr/2009/august/VAP-EIP.pdf>.
- ⁴⁴ Ohio Environmental Protection Agency, *VAP Environmental Insurance*, available at <http://www.epa.state.oh.us/portals/30/vap/docs/VAP%20INS/EIWebPagedesign.pdf>.
- ⁴⁵ Mass. Gen. Laws ch. 23G, § 29A (2012).
- ⁴⁶ *Cleanup of Sites & Spills: State Subsidized Environmental Insurance*, Massachusetts Department of Environmental Protection, available at <http://www.mass.gov/dep/cleanup/bfins.htm>.
- ⁴⁷ For more information about the types of environmental insurance coverage available, see *Insurance and Brownfields Redevelopment*, Environmental Protection Agency, available at <http://www.epa.gov/brownfields/insurance/>.
- ⁴⁸ City of New York, *PlaNYC: Brownfields*, available at http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/planyc_2011_brownfields.pdf.
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- ⁵⁴ Environmental Law Institute and Resources for the Future, *Estimating the Cost of Institutional Controls* (2005), available at <http://www.rff.org/rff/documents/rff-report-costs.pdf>.
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- ⁵⁶ Uniform Law Commission, *Legislative Fact Sheet: Environmental Covenants Act*, available at <http://www.uniformlaws.org/LegislativeFactSheet.aspx?title=Environmental%20Covenants%20Act>.
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- ⁵⁸ Amy L. Edwards ed., American Bar Association, *Implementing Institutional Controls at Brownfields and Other Contaminated Sites*, 2nd ed., 616 (2012).
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⁶⁴ 42 U.S.C. § 9607(c)(2). For a state statutory example, see Indiana's cost recovery provisions at Ind. Code § 13-25-4-10. For a fuller discussion see *An Analysis of State Superfund Programs*, (note 29), at 87-91.

⁶⁵ Or. Rev. Stat. § 465.330 (2011); Oregon Department of Environmental Quality, *Leaking Underground Storage Tanks Program: Cost Recovery*, available at <http://www.deq.state.or.us/lq/tanks/lust/costrecovery.htm>.

⁶⁶ The Oil Spill Liability Trust Fund is a federal program funded by taxes on the petroleum industry that is used by agencies to fund activities related to petroleum spills.

⁶⁷ Wisconsin Department of Natural Resources, RR Program, *DNR Nets \$111,000 to Offset State Cleanup Costs at Two Northern Wisconsin Spills*, Vol. 21, Issue 2, 4 (2011), available at [http://www.wastecap.org/wp/wp-content/uploads/ReNews-%20DNR%202011\(1\).pdf](http://www.wastecap.org/wp/wp-content/uploads/ReNews-%20DNR%202011(1).pdf).

⁶⁸ For an example of a successful recovery, see Wisconsin Department of Natural Resources, RR Program, *Settlement to Help Clean Up East Troy Manufacturing Plant Site*, Vol. 21, Issue 2, 7 (2011), available at [http://www.wastecap.org/wp/wp-content/uploads/ReNews-%20DNR%202011\(1\).pdf](http://www.wastecap.org/wp/wp-content/uploads/ReNews-%20DNR%202011(1).pdf).

⁶⁹ Wisconsin Department of Natural Resources, *Wisconsin Plant Recovery Initiative Two Year Report: Stemming the Tide of New Brownfield Properties*, PB-RR-925 (2012), available at <http://dnr.wi.gov/files/pdf/pubs/rr/rr925.pdf>.

⁷⁰ *Petroleum Environmental Cleanup Fund Award*, Wisconsin Department of Safety and Professional Services, available at <http://dsps.wi.gov/er/ER-PECFA-Home.html>.

Chapter 4

Institutional Streamlining

Due to the unique chemical contaminants and cleanup/redevelopment challenges posed by petroleum brownfields, the laws and regulatory procedures for addressing petroleum contamination have developed separately from those addressing non-petroleum contamination. This separation creates additional complexity that serves as a barrier to successful redevelopment projects. While it is true that petroleum brownfields have certain chemical attributes that can result in additional cost and complexity in remediation efforts, overall, the same redevelopment tools and approaches can successfully be used for all brownfield sites. Recognizing this, states have begun to harmonize and simplify the institutional structures, laws, procedures, and incentives used to address brownfield redevelopment projects by integrating petroleum brownfields regulations into their general brownfields frameworks.

Integrating Regulatory and Funding Requirements across Local, State, and Federal Jurisdictions

Streamlined and harmonized institutional structures across local, state, and federal government agencies can increase the efficiency, consistency, and transparency of the brownfields redevelopment process. An oft-cited obstacle to petroleum brownfield remediation and redevelopment is the cost of complying with multiple layers of regulations. Reducing regulatory complexity can help keep developers' costs down and thus enable more redevelopment projects to proceed. By coordinating the standards governing financial and technical assistance, eligibility criteria, and cleanup requirements for different types of contamination, state and local governments can simplify the challenges faced by developers and spur additional redevelopment.

The US EPA has taken the lead in consolidating brownfield redevelopment requirements at the state and federal level through its One Cleanup Program.¹ Launched in 2003, the program is a long-term initiative led by EPA's Office of Solid Waste and Emergency Response and Office of Enforcement and Compliance Assurance, in collaboration with the Association of State and Territorial Solid Waste Management Officials and state and tribal representatives. The program encourages environmental agencies to take steps to improve coordination and cooperation and reduce duplication among local, state, tribal, and federal programs involved in brownfields cleanup and redevelopment.² Several state agencies have signed a Memorandum of Agreement with regional EPA offices to solidify their commitment to enhanced coordination and cooperation. This approach is intended to facilitate more consistent and effective cleanups, provide better information about the cleanup process, and enable cross-cutting, more effective performance measures.³ Twenty-five states now have agreements in place with the EPA to coordinate their voluntary cleanup program requirements.⁴

Wisconsin is one of the states participating in EPA's One Cleanup Program. In 2006, the Wisconsin Department of Natural Resources signed a One Cleanup Program Memorandum of Agreement with the EPA to expedite cleanups under CERCLA (the Comprehensive

Environmental Response, Compensation, and Liability Act), RCRA (the Resource Conservation and Recovery Act), and TSCA (the Toxic Substances Control Act).⁵ Under RCRA, the agreement primarily deals with expediting petroleum cleanups pursuant to LUST programs. The agreement commits the WDNR and EPA to work together to implement cleanups under these statutes, to follow an agreed-upon implementation schedule,⁶ and to take other measures as needed to facilitate the cleanup and redevelopment of Wisconsin's brownfield sites.⁷

This effort to coordinate programs and expedite efforts across different levels of government by the EPA and state agencies represents an important step towards removing artificial barriers posed by unnecessary regulatory duplication and complexity to successful brownfields cleanup and redevelopment.

The procedures used by state entities to award funding and provide financial cleanup incentives can also hamper the redevelopment process, such as when the timeframe for making award decisions is not coordinated with the timelines followed by developers. Brownfield developers often must cobble together complex funding packages that include state grant assistance, tax credit investors, and private funding sources to finance a single large project. Arbitrary annual deadlines, long wait times, and small application windows for state funding sources can cause bottlenecks in an already-complex financing process and frustrate developer participation in state programs. Awareness of this challenge has led some states to begin refining their timelines to eliminate these scheduling frictions.

Wisconsin has recognized the difficulty that its annual deadline for brownfields grant applications posed for developers. The Department of Safety and Professional Services has since transitioned to an open application model where it accepts applications for petroleum brownfields projects at any time and promises to review and respond within six weeks.⁸ Similarly, Ohio uses rolling deadlines for most of its brownfields funding programs.⁹

Establishing Centralized Coordinating Entities

Some states have also experimented with establishing or appointing a lead or oversight entity to manage redevelopment projects in order to streamline redevelopment. This lead entity may be delegated responsibility for managing administrative processes, or may provide support by effectively serving as a centralized database to ensure consistency and objective evaluation of ongoing efforts. The following examples from New Jersey and Wisconsin illustrate centralized approaches that have been used to support brownfields and petroleum brownfields redevelopment.

New Jersey's Interagency Resource Group. New Jersey's Brownfields Redevelopment Interagency Team (BRIT) helps interested parties expedite brownfields projects by streamlining and coordinating the redevelopment process.¹⁰ Composed of representatives from more than 20 state agencies involved in the redevelopment process – including the New Jersey Department of Environmental Protection, New Jersey Redevelopment Authority, and New Jersey Department of Community Affairs¹¹ – the interagency team brings together state agencies, local entities, and developers to identify opportunities,

obstacles, and available assistance during the project planning stage. The team's mission is to streamline and coordinate the brownfields redevelopment process for interested parties, guided by New Jersey's Smart Growth policies and practices. The team has also created a New Jersey Brownfields Redevelopment Resource Kit that compiles all brownfield state resources into one place for easy access by developers and other stakeholders.¹²

Consolidating Responsibility and Clearly Defining Roles. Wisconsin's institutional structure has largely focused responsibility for contaminated properties within a single program. While multiple agencies address brownfields in different capacities, their individual responsibilities are clearly defined, and measures have been taken to enhance coordination among them. Broadly speaking, the Wisconsin Department of Natural Resources handles non-petroleum brownfields and high-priority petroleum sites, while the Department of Safety and Professional Services handles low- and medium-priority petroleum sites.¹³ In 2011, responsibility for LUST sites transitioned to the Department of Safety and Professional Services.¹⁴ Frequent meetings with various state agencies, local governments, environmental consultants, and private brownfields partners have helped facilitate collaboration on brownfields redevelopment among the different departments. In addition, periodic statewide conferences with representatives from the public and private sector have offered opportunities for widespread collaboration.

For most cases of contamination, the Department of Natural Resources' Remediation and Redevelopment Program provides a constant point of contact and guidance through the various stages of brownfields redevelopment, which follows the US EPA's integrated One Cleanup program that Wisconsin has joined. In addition to its One Cleanup approach, Wisconsin has also integrated diverse groups of stakeholders into the decision-making process for brownfields redevelopment. The Wisconsin Brownfields Study Group, comprising state and local officials, private parties, consultants, environmental lawyers, and academics engaged in brownfields cleanup and redevelopment, has fostered productive and efficient collaboration across interest groups. Its successes to date range from stakeholder education to policy and program creation to statutory and regulatory improvements. They include creation of the Brownfields Site Assessment Grant Program (now housed under the Wisconsin Economic Development Corporation), the Wisconsin Brownfields Insurance Program, and the Voluntary Party Liability Exemption (VPLE) insurance program.¹⁵ The Brownfields Study Group has recommended other changes to liability and financial programs within the state, which have been successfully implemented.¹⁶

Evaluating Outcomes

A continuing challenge for the many state agencies involved in economic development, environmental protection, housing, transit, and other areas whose work touches on brownfields redevelopment is the insufficiency of long-term monitoring and evaluation systems. Typically, only short-term data about a project's movement through the tracking entity's specific regulatory framework is gathered. As a result, this tracked information is often highly specific, time-limited,

and fragmented across agencies and divisions within agencies. Long-term tracking of site-specific outcomes – particularly once an agency’s involvement ends – largely does not exist. As discussed more fully in Chapter 5, such long-term monitoring of redevelopment projects can enable more effective identification and evaluation of programmatic trends, best practices, procedural challenges, and geographic, socioeconomic, and environmental factors underpinning program effectiveness.

In 2008, a report commissioned by the New Jersey Department of Community Affairs’ Office of Smart Growth, in conjunction with the New Jersey Brownfield Redevelopment Task Force, identified some effective methods that can be used to measure the benefits derived from brownfields redevelopment.¹⁷ The report highlighted the need for statistics that could inform the often-political process of large-scale redevelopment decisions. Hard numbers demonstrating the benefits of redevelopment can help motivate politicians, state agency officials, and the public to support remediation and redevelopment efforts. The report identified specific redevelopment benefits including increased tax revenue, jobs, and property values; reduced contamination; the opportunity to undertake sustainable redevelopment; and aesthetic improvements, among other returns.¹⁸

To track these benefits, the report made four recommendations. The first recommendation was to create a Sustainability Data Center that could serve as a comprehensive database for brownfields information voluntarily submitted by state government agencies under the auspices of a data-sharing Memorandum of Agreement.¹⁹ The second recommendation focused on data gathering from local governments. The report authors recommended that financial incentives be tied to long-term reporting requirements to encourage local government participation.²⁰ The report also recommended that the Sustainability Data Center integrate the information reported by local governments into the tracking system and establish a method to generate periodic municipal reports.²¹ The final recommendation is to use the tracked data to create an annual report highlighting municipalities’ new completed brownfield redevelopment projects.²²

Institutional streamlining provides an opportunity to increase the number of successful remediation and redevelopment projects. The consolidation of regulatory requirements across state and federal government through programs like EPA’s One Cleanup program have demonstrated that regulatory burdens can be reduced without compromising public health and safety. Statutory changes at the state and federal level to remove duplicative requirements and simplify administrative processes can complement such measures. In addition to integrating regulatory approaches, states should look for ways to simplify and harmonize funding frameworks across local, state, and federal sources. Additional data on project outcomes can help enable policy changes to ensure that financial resources can be put behind state brownfield efforts that are successful.

Chapter 4: Recommendations for Action

Simplification:

Look for opportunities to simplify regulatory processes by participating in federal programs that offer streamlined approaches, such as EPA's One Cleanup Program.

Create a lead or oversight entity to manage redevelopment projects in order to streamline redevelopment.

Support:

Review state brownfield funding programs and remove arbitrary application deadlines. Consider adopting rolling deadlines to encourage greater applicant participation.

Information:

Develop long-term monitoring and evaluation systems and maintain information in a centralized database, to track the outcome of state-supported brownfield redevelopment projects over time. Consider establishing an annual or biannual cycle for issuing summary reports.

Notes

¹ *One Cleanup Program*. US Environmental Protection Agency, Office of Solid Waste and Emergency Response (2010), available at <http://www.epa.gov/oswer/onecleanupprogram/> (hereinafter "*One Cleanup Program*").

² US Environmental Protection Agency, *One Cleanup Program Working in Concert to Make Our Cleanups Better* (2003), available at <http://www.epa.gov/swerrims/onecleanupprogram/docs/OCPFactSheet.pdf>.

³ *One Cleanup Program* (note 1).

⁴ *State and Tribal Response Programs Agreements*, US Environmental Protection Agency, available at http://www.epa.gov/brownfields/state_tribal/moa_mou.htm.

⁵ US Environmental Protection Agency, *One Cleanup Program Memorandum of Agreement between the United States Environmental Protection Agency Region 5 and the Wisconsin Department of Natural Resources* (2006), available at <http://dnr.wi.gov/topic/Brownfields/documents/ocp.pdf> (hereinafter "*One Cleanup Wisconsin*").

⁶ The schedule is determined by reference to the standards in the Government Performance Results Act Modernization Act of 2011, Pub. L. No. 111-352, 124 Stat. 3866 (2011).

⁷ *One Cleanup Wisconsin* (note 5).

⁸ J. Scott. *Overcoming Barriers to the Redevelopment of Petroleum Brownfields and Other Vacant Properties: The Wisconsin Approach*, Milwaukee, WI, (Presentation), Wisconsin Department of Commerce 18-19 (May 2010); see also WIS. ADMIN. CODE S.P.S. § 347 (2012).

⁹ Clean Ohio Fund, *Common Brownfield Funding Sources in Ohio* (2011), available at http://clean.ohio.gov/BrownfieldRevitalization/Documents/CommonBrownfieldFundingSourcesinOhio2011_000.pdf.

¹⁰ *Brownfields Redevelopment Interagency Team*, State of New Jersey Brownfields (2011), available at <http://nj.gov/state/planning/brownfields-task-force.html> (hereinafter “*Brownfields Interagency Team*”).

¹¹ *Brownfields Interagency Team* (note 10).

¹² New Jersey Department of Community Affairs, *Resource Kit: Bringing New Jersey’s Brownfields Back to Life*, available at <http://nj.gov/state/planning/docs/brownfieldsresourcekit.pdf>.

¹³ *Petroleum Contamination*, Wisconsin Department of Natural Resources, available at <http://dnr.wi.gov/topic/brownfields/petro.html>.

¹⁴ Wisconsin Department of Natural Resources & Wisconsin Department of Commerce, *The Financial Resource Guide for Cleanup and Redevelopment* (2013), available at <http://dnr.wi.gov/files/PDF/pubs/rr/RR539.pdf> (hereinafter “*Wisconsin Financial Resource Guide*”).

¹⁵ *Wisconsin Financial Resource Guide* (note 14).

¹⁶ *Wisconsin Financial Resource Guide* (note 14).

¹⁷ J. Shaw, H. Mayer, and M. Greenberg. *Measuring Brownfield Success in New Jersey: How Data Increases Our Competitive Edge*, National Center for Neighborhood and Brownfields Redevelopment (2008), available at <http://www.policy.rutgers.edu/brownfields/projects/success.pdf> (hereinafter “*Measuring Brownfield Success*”).

¹⁸ *Measuring Brownfield Success* (note 17), at 20-21.

¹⁹ *Measuring Brownfield Success* (note 17), at 22.

²⁰ *Measuring Brownfield Success* (note 17).

²¹ *Measuring Brownfield Success* (note 17), at 22-23.

²² *Measuring Brownfield Success* (note 17), at 23.

Chapter 5

Developing and Sharing Information about Brownfields Redevelopment

Comprehensive inventories of petroleum sites can enable states to monitor and promote candidates for redevelopment to potential developers. Inventories are also required as a condition for receiving federal funding under the federal Small Business Liability Relief and Brownfields Revitalization Act (“Brownfields Law”).¹ Inventories and other information collection systems are particularly important to successful redevelopment of petroleum brownfield sites because federal funding for petroleum sites under the Brownfields Law is contingent on a particular site’s level of risk relative to other petroleum sites within a state. Federal Brownfields Assessment grants can be used to support state development of these inventories.

While the details of data collection vary from state to state, some of the typical information gathered includes property history, environmental conditions, institutional controls, cleanup and redevelopment status, and socioeconomic information.² Collecting all of this information together in one location provides a simple one-stop access point that can help developers explore available plots, consider reuse options, consider the state’s redevelopment support resources, and begin to initiate redevelopment projects. The availability of site-specific information as well as redevelopment success stories can be especially effective in encouraging the cleanup and reuse of petroleum-contaminated sites that are sometimes viewed as less desirable due to their size, location, administrative complexity, or liability potential. Recognizing the importance of collecting and sharing brownfields redevelopment information, this section outlines examples of collection and communication strategies currently in use by different states across the country.

Inventorizing Redevelopment Candidate Sites

State inventories vary substantially with respect to format, content, and accessibility. While some states maintain a separate list for petroleum-contaminated sites, other states include petroleum sites in a combined inventory of all state brownfields. Inventories also range from a list of unidentified brownfield sites that are publicly available only upon request to a publicly searchable database of vacant properties that includes key characteristics such as past uses, present ownership status, and access to infrastructure. Although some critics claim that inventories identifying brownfields may risk decreasing property values by generating a negative stigma, states are continuing to develop site-specific and accessible inventories.³

New Hampshire: Inventorizing Tank Facilities at Risk of Becoming Future Petroleum Brownfields. Petroleum brownfield sites frequently originate as a property whose owner can no longer afford to operate its tanks, or properties with abandoned tanks that a municipality eventually claims due to non-payment of taxes. To monitor sites with potential to become petroleum brownfields, New Hampshire has developed database queries that generate reports from its list of underground storage tanks.⁴ The reports include information about tank

facilities in temporary closure, facilities that are required to close single wall tanks,⁵ and piping and abandoned tanks.⁶ The state's reports on tank system status have been used to identify a significant number of petroleum brownfield sites.

Pennsylvania: Creating a Database Geared Toward Site Developers. In Pennsylvania, the Team Pennsylvania Foundation – a public-private partnership – along with the State Department of Community and Economic Development, Economic Development Association, and Department of Environmental Protection's Land Recycling Program work together to maintain PASiteSearch, an online database with detailed information on thousands of sites, including, but not limited to, brownfields. To facilitate site selection for economic redevelopment, the database enables potential developers to search site characteristics by specific criteria. It also includes brownfield sites available for sale or lease.⁷

New Jersey: Innovative Mapping Approaches to Tracking. New Jersey has several innovative systems in place to track brownfields information. NJ-GeoWeb is an interactive GIS mapping tool that allows the public to view GIS maps showing environmental, land use, and other site-specific information for properties located in New Jersey. NJ-GeoWeb builds on an older tool, I-MapNJ, which offers similar functions and is linked to New Jersey's database of brownfield sites, the New Jersey SiteMart. Each property listed on the New Jersey SiteMart database currently includes a link to the property's location via I-MapNJ and Google Maps. In the future, these tools will be fully replaced by NJ-GeoWeb.⁸

Because the state defines brownfields to include sites where there is suspected contamination, not all sites listed on SiteMart are actually contaminated. For this reason, New Jersey also compiles the Known Contaminated Sites in New Jersey (KCS-NJ) report, which lists active, pending, and closed sites, by county and city, where contamination of soil and/or groundwater has been detected at levels exceeding applicable cleanup standards.⁹ Sites listed on the KCS-NJ report can also be accessed through IMapNJ and in the future will be accessible through NJ-GeoWeb. The New Jersey Department of Environmental Protection (NJDEP) also maintains a database that allows users to search for one or more sites under active regulation, and to retrieve additional information about a site's regulatory status.¹⁰ Finally, NJDEP's Brownfields Development Area Initiative, viewable on its website, provides an overview of Brownfields Development Areas that have been redeveloped, including the name of each Brownfields Development Area, year of redevelopment, number of sites and acres it contains, and intended use (including residential, commercial, open space, mixed-use, hotel, and industrial uses).¹¹ The Initiative's user-friendly format enables communities, industry, and potential funders to understand the status of Brownfield Development Areas and their paths to redevelopment.

Connecticut: Tracking Planned and Recent Remediation Efforts. Connecticut's Department of Environmental Protection has established an inventory of brownfield sites within the state based on information received from towns and regional development agencies.¹² The state also maintains a list of contaminated or potentially contaminated sites,¹³ including sites at which remediation actions are planned within the next year, as well as those where response actions have been completed.

Maine: Using Google Earth to Track Brownfields. Through Google Earth, the Maine Department of Environmental Protection's (DEP) GIS Unit now offers information on a number of geographically-referenced sites managed by different DEP bureaus, including brownfield sites.¹⁴ Specifically, the GIS unit lists sites under the jurisdiction of the state's Bureau of Remediation and Waste Management, including Hazardous Oil Spill System (HOSS) Sites, Remediation Sites, and the Registered Petroleum Tanks Database.¹⁵

Indiana: Development and Funding of Brownfield Inventory Systems. Elkhart County, Indiana used a federal Brownfields Assessment grant to create a publicly available "e-Atlas" – a GIS-based brownfield inventory that maps and provides detailed information about thousands of open and closed sites throughout the county where hazardous and/or petroleum substances have been used.¹⁶ Intended to encourage the sale and rehabilitation of contaminated land, the database is designed to provide potential buyers with information that can help them determine cleanup and redevelopment costs.¹⁷

Following the success of e-Atlas in Elkhart County, the City of Indianapolis created an inventory of approximately 353,000 parcels of different types of land in Marion County.¹⁸ Funded by EPA and HUD, the Indianapolis Site Inventory Tool project identifies sites ready for redevelopment, assists with site marketing, and tracks progress on cleanup and redevelopment. The inventory incorporates pre-existing data collections, including the 2004 Center Township Indiana University School of Public and Environmental Affairs Capstone, the 2007 Phase I Environmental Site Assessment Area Survey, and the Irvington DC and Near North Development Corporations Inventories.¹⁹ For the brownfield sites, the inventory identifies the data source and includes parcel and address information, an identification number assigned by the city, site status (e.g. brownfield, site of concern, redeveloped site, or redevelopment-ready site), links to relevant databases hosted by EPA and/or the Indiana Department of Environmental Management, and zoning information, among other site characteristics.²⁰ This GIS-based brownfield inventory tool is web-enabled and publicly available.²¹

Box 3: Federal Databases for Petroleum Brownfield Sites and Reuse Tools

Envirofacts: The US EPA manages the Envirofacts website, which provides access to several EPA databases containing information submitted or compiled pursuant to federal air, water, and waste laws. Users can retrieve information by zip code or facility name. See: <http://www.epa.gov/enviro/>.

ATSDR Brownfield/Land Reuse Site Tool: The federal Agency for Toxic Substances and Disease Registry (ATSDR, within the Centers for Disease Control and Prevention) has created this searchable database of brownfield properties, which provides information on former uses, institutional controls, and other site characteristics. The tool can be viewed at: <http://www.epa.gov/r5brownfields/pdf/bf-sitetool-flyer-072109.pdf>. It is also available as a CD packet that can be obtained from ATSDR by e-mailing the agency at atsdr.landreuse@cdc.gov.

The **UST page of the US EPA's OSWER** website includes a searchable list of "Reuse Success Stories" highlighting selected housing, commercial, environmental, and recreational redevelopments. The success stories can be viewed at: <http://www.epa.gov/OUST/petroleumbrownfields/pbreuse.htm>.

Wisconsin: Linking Cleanup Redevelopment Information from Multiple Databases. In Wisconsin, the Department of Natural Resources' (WDNR) Remediation and Redevelopment Program has developed a searchable and publicly available set of databases, including maps, of the site-specific information compiled through the WDNR's Contaminated Lands Environmental Action Network (CLEAN). Users can choose between a text-based format (titled "Bureau for Remediation and Redevelopment Tracking System on the Web") or a map-based display of the site-specific information (titled the "RR Sites Map"). The CLEAN system links information about contaminated lands from both of these DNR databases. It provides a visual overview of properties as well as detailed, site-specific information, including site location, activities undertaken, progress updates, agency jurisdiction, level of petroleum risk, contaminated soil or groundwater, DNR funding assistance, contamination investigations and cleanups, and other actions that have taken place on the site.²²

Tracking, Assessing, and Publicizing Redevelopment Benefits

Tracking, assessing, and publicizing information about redevelopment benefits can provide statistics that are useful in generating support for cleanup efforts. By building awareness of the economic, fiscal, social, environmental, and public health benefits enabled by brownfield remediation, critical actors, ranging from state leaders to citizens in affected communities, can be mobilized to support remediation efforts. Collecting data on job creation, increased tax revenues, additional public space, and aesthetics improvements can help highlight the economic, fiscal, and social benefits of redevelopment. Many states are tracking this information and channeling it into broader initiatives to build support for redevelopment. As such, it is critical to develop continuing, effective processes for publicizing this information.

In a 2009 survey of all fifty states, the Association of State and Territorial Solid Waste Management Officials found that a total of fifteen states are tracking jobs created or retained as a result of brownfields projects.²³ For example, Indiana collects information on the number, types, and wages of jobs created; Idaho and Virginia collect data on full and temporary/part-time jobs created; and Oregon tracks the number of cleanup and construction jobs created during the cleanup process. Survey respondents are also tracking private vs. public sector investment in projects, along with information about current and former site use. Michigan, Minnesota, and Wisconsin collect information about the extent of private investment, while Oregon and Washington collect information about public investment.²⁴ Massachusetts, Virginia, Florida, and Idaho are collecting information about grants, loans, other public incentives, and privately-borne cleanup and construction costs. The survey did not specifically ask the responding states about petroleum brownfields projects. In completing research for this paper, it became clear that most information tracked by states is not broken down by type of contaminant.

The following examples illustrate specific approaches used by states to track brownfields remediation information.

Establishing Benchmarks and Tracking Site Quality Indicators. In Wisconsin, a partnership of public, private, and academic entities started the Menomonee Valley Benchmarking Initiative in 2001 to measure and communicate the impacts of redeveloping the 1200-acre Menomonee River Valley.²⁵ During an extended period of business closures and relocations, old tanneries and stockyards in the area left hundreds of acres of contaminated land and water behind. In recent years, a tremendous redevelopment effort has targeted the area for cleanup, and 300 acres of brownfields have been redeveloped.²⁶ The partnership works to identify social, economic, and environmental indicators of the ‘state’ of the Menomonee Valley, using benchmarks to periodically measure progress on individual issues towards the goal of improving the Valley. For example, employment benchmarks include employment levels in the Menomonee Valley, employment by business activity, average income, residential location of Menomonee Valley employees, and provision of health insurance.²⁷ This approach combines two important components of successful brownfields redevelopment efforts: monitoring overall project progress and communicating success to the public.

Delaware: Documenting Economic Benefits of Redevelopment. The state of Delaware, in partnership with the University of Delaware’s Center for Applied Demography & Survey Research,²⁸ recently published a comprehensive economic evaluation of brownfield redevelopment benefits across three counties. The university analyzed the effects of redevelopment on property values and economic activity, examining 119 brownfield properties in the state program during a ten-year period through 2008.²⁹ Results indicate that disposable income in Delaware increased by \$105 million as a result of activities associated with site cleanup and construction in 2008. Moreover, for every nominal dollar spent by the brownfield program (both state and federal funds), property values increased by approximately \$17.50. The total assessed property values in all three counties increased between 1998 and 2008, ranging from a \$455 million increase in the county with the most redevelopment activity to a \$200,000 increase in the county with the least redevelopment. The study also found an unambiguous increase in wages, though some counties and sectors³⁰ demonstrated more robust gains than others.³¹

New York: Engaging Communities in Tracking Jobs. In New York, the Brownfield Opportunity Areas (BOA) program has generated substantial benefits and helped to address challenges related to community renewal.³² Across the state, more than 100 communities are involved in the BOA program, collectively representing more than 4,700 brownfield sites covering 50,000 acres.³³ Benefits from these redeveloped sites include jobs created both before and after development. One estimate projects that revitalization of the 100 communities in the BOA program would create 27,500 to 45,500 jobs.³⁴ Such jobs can range from pre-development employment in urban design and economic consulting to post-development positions supporting new businesses.

As shown throughout this chapter, states are using various approaches and new technologies to track information about brownfield sites. From New Hampshire’s efforts to identify potentially problematic sites before they become brownfields, to Maine’s and Indiana’s efforts to use modern GIS software to track sites, to Delaware’s and New York’s efforts to move beyond site characteristic tracking to include economic indicators, a wealth of information is now available

through state tracking initiatives. As tracking technology continues to develop, which will ideally help lower cost barriers, the amount of information available to developers and the public will likely increase even further. However, it remains to be seen whether this increase in information tracking will spur greater remediation and development of brownfield sites.

Chapter 5: Recommendations for Action

Simplification:

Develop methods to integrate brownfields information tracked by multiple programs into one centralized repository.

Support:

Develop methods to track and communicate the benefits of successful brownfields remediation projects, such as jobs and increased property values, to build public support for further public investment.

Information:

Develop tracking methods to capture site-specific information useful to redevelopers, including location, type(s) of suspected contamination, opportunities for combining multiple parcels into large development areas, and sites already undergoing remediation and redevelopment.

Use technology such as GIS databases and Google Earth to make tracked brownfields information easily accessible to the public.

Notes

¹ 42 U.S.C. 9628(a)(2)(A)).

² US Environmental Protection Agency, *Petroleum Brownfields: Developing Inventories* (2009), available at <http://www.epa.gov/oust/pubs/pbfdevelopinventories.pdf> (hereinafter “*Developing Inventories*”).

³ *Developing Inventories* (note 2), at 3.

⁴ *Waste Management Division Reports and Listings*, New Hampshire Department of Environmental Services, available at http://www2.des.state.nh.us/OneStop/ORCB_Web_Reports_Menu.aspx.

⁵ In New Hampshire, tank owners are required to close single-wall piping and tanks by December 22, 2015. N.H. Code Admin. Env-Wm 1401.18 (2013).

⁶ *One Stop Search*, New Hampshire Department of Environmental Services, available at <http://www2.des.state.nh.us/DESONestop/BasicSearch.aspx>.

⁷ *PASiteSearch*, Team Pennsylvania Foundation, available at <http://www.pasitesearch.com/>.

- ⁸ *NJ-GeoWeb*, New Jersey Department of Environmental Protection, available at <http://www.nj.gov/dep/gis/geoweb splash.htm>.
- ⁹ *Known Contaminated Sites in New Jersey Reports*, New Jersey Department of Environmental Protection, available at <http://www.nj.gov/dep/srp/kcsnj/>.
- ¹⁰ *DEP Data Miner*, New Jersey Department of Environmental Protection, available at http://datamine2.state.nj.us/dep/DEP_OPRA/.
- ¹¹ *BDA Sites At A Glance*, New Jersey Department of Environmental Protection, Site Remediation Program, available at <http://www.state.nj.us/dep/srp/brownfields/bda/sites/>.
- ¹² *Connecticut Brownfields Inventory*, Connecticut Department of Energy and Environmental Protection, available at http://www.ct.gov/Dep/cwp/view.asp?a=2715&q=488996&depNav_GID=1626 (hereinafter “*Connecticut Brownfields Inventory*”).
- ¹³ *Connecticut Brownfields Inventory* (note 12).
- ¹⁴ *GIS Data and Maps*, Maine Department of Environmental Protection, available at http://www.maine.gov/dep/gis/datamaps/index.htm#Google_Earth_Maps (hereinafter “*GIS Data and Maps*”).
- ¹⁵ *GIS Data and Maps* (note 14).
- ¹⁶ “*e-Atlas*” *Receives National Recognition as Brownfield Inventory Tool*, Elkhart County, Indiana, available at <http://www.elkhartcountylanduse-reuse.com/e-atlas/>.
- ¹⁷ *Elkhart County, Indiana Integrates Laserfiche with GIS to Improve its Tax Base by Better Managing Brownfields*. Field Technologies Online (2010), available at <http://www.fieldtechnologiesonline.com/article.mvc/Elkhart-County-IN-Integrates-Laserfiche-0001>.
- ¹⁸ Chris Harrell, *Tapping Into the Emerging Green Economy: Green Economic Development Strategies for Community & Brownfield Redevelopment* (2009), available at <http://deltabrownfields.files.wordpress.com/2009/09/tapping-that-green-economy-indy-brownfields-09-15-2009.pdf> (hereinafter “*Tapping Into Green Economy*”).
- ¹⁹ *Tapping Into Green Economy* (note 18).
- ²⁰ *Tapping Into Green Economy* (note 18).
- ²¹ City of Indianapolis, Department of Metropolitan Development. Indianapolis Site Inventory Tool, available at <http://maps.indy.gov/MapIndy/Index.html?theme=Brownfields>.
- ²² *CLEAN – Remediation & Redevelopment (RR) Sites Map*, Wisconsin Department of Natural Resources, Remediation and Redevelopment Program, available at <https://dnr.wi.gov/org/aw/rr/gis/index.htm>.
- ²³ Association of State and Territorial Solid Waste Management Organizations, *Compendium of State Land Revitalization Indicators* (2009), available at http://www.astswmo.org/Files/Policies_and_Publications/CERCLA_and_Brownfields/SRBPO-COMPENDIUM/SRBPO_Complete_Comendium-05.28.09.pdf (hereinafter “*Compendium of Indicators*”).
- ²⁴ *Compendium of Indicators* (note 23), at 4.
- ²⁵ Menomonee Valley Benchmarking Initiative. *2005 State of the Valley: Evaluating Change in Milwaukee’s Menomonee Valley* (2005), available at <http://epic.cuir.uwm.edu/mvbi/pdfs/intro.pdf>.
- ²⁶ *Menomonee Valley Partners, Inc.*, available at <http://www.renewthevalley.org/>.
- ²⁷ Chris De Sousa and T. Johnson, *State of the Valley – Employment*. Menomonee Valley Benchmarking Initiative, available at <http://epic.cuir.uwm.edu/mvbi/pdfs/employment.pdf>.
- ²⁸ *Center for Applied Demography & Survey Research*, University of Delaware, available at <http://www.cadsr.udel.edu/>.
- ²⁹ *UD study quantifies economic benefits of Delaware Brownfields Program*, Delaware Department of Natural Resources and Environmental Protection (2010), available at <http://www.dnrec.delaware.gov/News/Pages/UDStudyQuantifiesEconomicBenefitsofDelawareBrownfieldsProgram.aspx>.

³⁰ In general, most of the gains in economic benefits were seen in the finance and insurance sectors. Other sectors that saw increased growth include administrative support, waste management, and remediation services.

³¹ The study authors noted that the employment statistics in the study were highly dependent on the definition of “brownfield employment” and thus conclusions based on the statistics would have a high degree of uncertainty.

³² New Partners for Community Revitalization, Inc, *Smart Growth Outlook 2011: Challenges and Opportunities in Brownfields, Area-Wide Planning & Implementation* (2011), available at http://www.npcr.net/about_boa_brownfields/NPCRJournal_OnLinevF2.pdf (hereinafter “*Smart Growth Outlook*”).

³³ *Smart Growth Outlook* (note 32), at 4.

³⁴ *Smart Growth Outlook* (note 32), at 7.

Chapter 6

Financial Support for Site Assessment, Cleanup, and Redevelopment

Carefully channeling grants and incentives to remediation and redevelopment projects is a vital responsibility of state government agencies. Direct state funding through grants or other award mechanisms often supplements the private capital investments needed to fund large-scale redevelopment projects – particularly the sort of area-wide or corridor-wide redevelopment projects that often encompass petroleum brownfield sites. The availability of state funding assistance can be the deciding factor in whether a cleanup and redevelopment project proceeds.

States can draw upon a variety of funding mechanisms to support petroleum brownfields redevelopment. Grants for technical assistance or opportunities for cleanup cost reimbursement can help parties manage unforeseen challenges – such as previously undetected contamination or difficulties associated with unique site characteristics – and navigate administrative hurdles, such as complex application and eligibility requirements. Additionally, state financial incentives like tax credits or tax forgiveness programs often operate on a more targeted basis, by encouraging desired behaviors to meet defined local or statewide goals (such as infill redevelopment or historic area revitalization). While a number of these grants and incentives are available for all brownfields programs, certain opportunities may be available only for petroleum brownfields.

Securing Federal Funding for Petroleum Brownfields Cleanup and Redevelopment Efforts

State agencies can draw on a wide range of federal funding resources to support petroleum brownfields redevelopment. Petroleum brownfield sites are often eligible for funding through petroleum-specific funding programs. For some federal funding sources, state government agencies are responsible for allocating resources within their state. Even where state agencies do not have decision-making authority over federal funds, they retain an important role in supporting individual applicants to increase their likelihood of success.

The federal government offers a wide range of support for brownfields cleanup and redevelopment. Federal grant funds are available for assessment, cleanup, and redevelopment planning, although applicants (including states and private developers) must meet federal program-specific eligibility requirements. These requirements can be complex and may vary across funding sources. For example, the federal Brownfields Law added a State and Tribal Response (Section 128(a)) program to CERCLA to provide \$50 million of non-competitive grants annually to state and tribal voluntary response programs.¹ To be eligible for this funding, a state must demonstrate that it either has a Voluntary Response Program Memorandum of Agreement with EPA,² or that its program includes (or is taking reasonable steps to include) the following four elements: (1) a brownfields inventory; (2) oversight and enforcement

authorities/other mechanisms and resources; (3) public participation mechanisms; and (4) cleanup plan approval and cleanup verification mechanisms.³ Once eligibility is established, these Section 128(a) funds can be used to support site-specific inventories, assessments, and/or cleanups of petroleum-contaminated properties.

Box 4: Federal Funding for State Brownfields and Petroleum Brownfields Programs†

EPA's Brownfields Area-Wide Planning Program, in partnership with local communities, promotes area-wide revitalization and facilitates the assessment and cleanup of individual brownfields properties. Information available at: http://www.epa.gov/brownfields/areawide_grants.htm.

Sustainable Community Challenge Grants and Sustainable Communities Regional Planning Grants, distributed by HUD through the Partnership for Sustainable Communities, support sustainable communities and local planning that incorporates housing, jobs, and public transportation. Information available at: http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities/sustainable_communities_regional_planning_grants.

EPA's Community-Wide Assessment Grants, Site-Specific Assessment Grants, and Coalition Assessment Grants can all be used to develop brownfields inventories, conduct site assessments, plan cleanups, and prioritize specific brownfield sites. Information available at: <http://www.epa.gov/oswer/docs/grants/epa-oswer-oblr-12-07.pdf>.

Brownfields Assessment Grants is an EPA program that grants governmental entities funding for inventorying, characterization, assessment, planning, and community involvement related to brownfields. Information available at: http://www.epa.gov/brownfields/assessment_grants.htm.

Targeted Brownfield Assessments, through the US EPA, use a contractor to conduct environmental assessment activities that can include Phase I and Phase II assessments, as well as an evaluation of cleanup options and/or cost estimates based on future uses and redevelopment plans. Information available at: http://www.epa.gov/brownfields/grant_info/tba_0403.pdf.

EPA's Brownfields Revolving Loan Fund Grants allow recipients to capitalize a Revolving Loan Fund. Money from this Revolving Loan Fund can then be redistributed in loans and subgrants for the purpose of financing cleanup activities at brownfield sites. Information available at: <http://www.epa.gov/oswer/docs/grants/epa-oswer-oblr-12-08.pdf>.

EPA's Brownfields Cleanup Grants fund individual applicants to conduct cleanup activities at brownfield sites. Information available at: <http://www.epa.gov/oswer/docs/grants/epa-oswer-oblr-12-09.pdf>.

EPA's RE-Powering America's Land initiative facilitates the reuse of contaminated land – including brownfields sites – and mine sites for the generation of renewable energy. Information available at: <http://www.epa.gov/oswercpa/>.

EPA's Brownfields Job Training Grants provides local governments and nonprofit organizations with funding to train unemployed and under-employed residents of brownfield-impacted communities. Trainings target skills relevant to the cleanup of brownfields. Information is available at: <http://www.epa.gov/oswer/docs/grants/epa-oswer-oblr-13-03.pdf>.

Community Development Block Grants are awarded on a formula basis and may be used for brownfields-related activities such as site assessment, cleanup, demolition, rehabilitation, and construction. The grants fund activities that benefit low- and moderate-income persons, such as the creation of affordable housing opportunities. The grants are administered by the US Department of Housing and Development. Information is available at: <http://www.hud.gov/offices/cpd/communitydevelopment/programs/>.

US Department of Agriculture's Rural Development program develops economic opportunities in rural areas, through the revitalization of brownfields. The program offers assistance through loans and grants to businesses, community facilities, and family housing as well as community and economic development programs. Information is available at: <http://www.rurdev.usda.gov/AboutRD.html>.

† This box summarizes major federal funding sources available for use by state brownfields programs. Information about additional federal funding sources can be found in the *Brownfields Federal Programs Guide*, 2011 Edition, published by the US EPA's Office of Solid Waste and Emergency Response and available at: http://www.epa.gov/brownfields/partners/2011_fpg.pdf.

The EPA's Underground Storage Tank Program is another federal funding source for cleaning up federally-regulated underground storage tank releases that threaten human health and the environment. A portion of this funding is allocated to states and territories for site assessments, management and oversight, redevelopment, and end-use planning.

In addition to federal grants, federal loans can also be used to support petroleum brownfields cleanup. EPA's Revolving Loan Fund may provide up to \$1,000,000 in loan or sub-grant funding per site to clean up petroleum brownfield sites. Eligible sites can include a combination of petroleum and hazardous-substance contaminants. This loan fund requires a 20% cost share by participants.⁴

Providing Resource Guides and Technical Assistance

Because brownfields and petroleum brownfields funding (particularly the latter) is dispersed across numerous federal and state agencies, resources can be difficult to identify and secure. As a result, developers sometimes miss available funding opportunities because they are unaware of them or find the process too cumbersome. Local governments, regional councils, and redevelopment agencies are also eligible for certain categories of federal funding. States can help inform these entities about funding opportunities and eligibility requirements. To minimize confusion, some state offices track grant cycles and publish key information in guides targeted to local governments, community groups, and private parties. The publication of these guides has become an emerging best practice for state brownfields efforts.

States have also begun to provide applicants with training and assistance on how to successfully apply for funding. Many states have established programs, prepared guides, or developed other tools to assist potential developers to navigate the brownfields funding landscape. These tools can be targeted at individual or institutional developers and often go beyond explaining opportunities to providing assistance in completing applications. Especially for groups such as nonprofit community organizations, who are eligible for funding but may not be able to pay for experienced grant writers or consultants, providing focused training on how to apply for federal funding can be a very substantial state contribution.

Wisconsin: In 2009, Wisconsin's Department of Natural Resources and Department of Commerce jointly authored a "Financial Resource Guide for Cleanup and Redevelopment."⁵ The guide, which includes petroleum brownfields cleanups, summarizes grants, reimbursements, loans, tax credits and incentives, revitalization funding, and technical assistance available to local governments, as well as recent trends and developments among federal and state funding sources.⁶ These various forms of funding and assistance can be applied to a wide range of remediation and redevelopment activities, including planning, property acquisition, environmental site investigation, and cleanup. The guide also explains eligibility criteria and the amount of funding available through various state and the federal sources.⁷

In addition to the Financial Resource Guide, Wisconsin's Remediation and Redevelopment Program, overseen by the Department of Natural Resources (DNR), has established a Green Advisory Team to help applicants determine whether they are qualified for a particular grant or loan, and what liability they may face. Interested parties may meet with "green teams" comprised of staff from DNR or other relevant agencies to discuss options available for one or several properties.⁸

Minnesota: Similar to Wisconsin's guide, "Minnesota's Brownfields: A Resource Guide" highlights financial resources available to those interested in buying, selling, and redeveloping brownfields.⁹ A joint effort by the Minnesota Department of Employment and Economic Development, Minnesota Pollution Control Agency, and Minnesota Brownfields (a nongovernmental organization), the guide contains information on grants, reimbursements, loans, tax credits, and technical assistance available at the state and federal levels.

New Jersey: The New Jersey Brownfields Redevelopment Resource Kit, published by the state's Office of Community Affairs, includes an introduction to brownfields redevelopment, smart growth principles, and an overview of the resources that are available to support remediation and development.¹⁰ The Kit includes information that can be useful at every stage of the redevelopment process. The material is organized by stages (planning, environmental remediation, and financing) and by a site's intended use (housing, retail, industrial, or a community center). The information contained in the Kit is thorough and accessible to users of varying levels of sophistication.

Regional & National Guides: State agencies should also be familiar with resource guides prepared by national and regional organizations, such as the "Brownfields Resource Guide for Rural and Small Communities" created by the NADO Research Foundation in 2004.¹¹ Although not a comprehensive list of all available funding, the guide provides an overview of state and federal technical resources and federal and private funding sources. Other regional or national guides include the EPA's "Brownfields Federal Programs Guide"¹² and the Northeast-Midwest Institute's "Financing Strategies for Brownfield Cleanup and Redevelopment."¹³

Providing State Funding for Petroleum Brownfields Cleanup and Redevelopment Efforts

Thirty-six states have dedicated funding to address leaking underground storage tanks (LUSTs), and a number of states fund actions to address petroleum releases from aboveground storage tanks.¹⁴ Nationwide, these state LUST Trust funds cover over 350,000 sites, with \$1.4 billion collected annually to compensate for claims.¹⁵ Owners and operators who are responsible parties are eligible for these funds, which can also be used in certain cases where the responsible party is not able or willing to remediate the site. States are working to expand the pool of potential funding recipients beyond property owners to encompass groups such as community-based organizations and other important redevelopment catalysts. The following examples highlight

several state-specific petroleum cleanup funding sources and efforts to expand funding eligibility.

Partial Reimbursement for Corrective Action of Petroleum-Contaminated Sites

Minnesota: Minnesota has a Petrofund program, which provides partial reimbursement for cleanup costs associated with releases from underground and above-ground petroleum storage tanks. The program will also pay contractors to remove abandoned underground petroleum storage tanks.¹⁶ Under the program, owners or operators of petroleum USTs or above-ground petroleum storage tanks can receive funding to undertake corrective action. The program provides reimbursement for up to 90% of eligible cleanup costs. Both site investigation costs and direct cleanup costs are eligible for reimbursement. The total reimbursement amount is capped at \$1 million per release and \$2 million per facility.

New Hampshire: New Hampshire has four separate petroleum reimbursement funds that address methyl tertiary-butyl ether contamination (MTBE, a commonly used fuel additive),¹⁷ releases of motor oil from tanks,¹⁸ releases of motor fuel from above-ground and underground tanks,¹⁹ and releases of heating oil from above-ground and underground tanks.²⁰ State reimbursement funds vary with respect to the types of sites and releases that are eligible. Some may also require co-pays and deductibles.²¹

Expanding Eligibility for Brownfields Funding

New York: The Brownfield Opportunity Areas (BOA) program, established through the New York State Brownfields Law of 2003, provides grants to municipalities, community-based organizations, and community boards for activities related to brownfield redevelopment.²² These grants cover up to 90 percent of costs for the development of revitalization plans, implementation strategies, and site assessments in areas where brownfield sites are concentrated.²³ Such funding opportunities for communities and community organizations enable residents of affected areas to participate in decisions about remedial actions and proposed end uses.²⁴

Ohio: Ohio's Environmental Protection Agency and Department of Development have distributed grants for brownfields redevelopment to local municipalities, port authorities, conservancy districts, nonprofit organizations, and for-profit organizations. These grants were provided through the Clean Ohio Assistance Fund and the Clean Ohio Revitalization Fund.²⁵

Leveraging Private Sector Resources to Support Brownfields Redevelopment

As potential developers have increasingly looked to government for support of brownfield remediation and redevelopment projects, states have in turn taken a closer look at private and nonprofit funding sources to help fund large projects. In an era of constrained resources, these new sources of private and nonprofit support represent a promising approach. The following

examples showcase projects where private funding used together with government resources have helped generate positive results on a larger scale.

Washington: Private Funding for Government Staff Positions. Under Washington State's Voluntary Cleanup Program, Shell Oil Products has agreed to clean up contamination at multiple current and former gas stations.²⁶ Pursuant to its voluntary agreement with the Department of Ecology, Shell committed to investigate and clean up 83 sites in four counties in Washington State.²⁷ Shell is also funding two Department of Ecology staff positions that will be focused solely on providing technical assistance during the cleanups. The target sites will have to meet the same cleanup standards as those managed by the Department of Ecology under the state's Model Toxics Control Act, though Shell will make its own management decisions about the cleanup.²⁸ The agreement is expected to allow Shell to streamline the process significantly and keep its redevelopment planning activities on schedule.²⁹

Florida: Private Funding and the Gaines Street Corridor. The City of Tallahassee, in coordination with Florida's state agencies, successfully secured private funding to redevelop the Gaines Street Corridor, including conversion of a bulk petroleum storage facility into a Residence Inn. The site increased in value from under \$600,000 to over \$10 million after redevelopment. This success led the city to seek to expand the project with additional funding from EPA. In 2008, Tallahassee received \$400,000 to complete contamination assessments along the transportation corridor, and in 2009, the city received \$600,000 to clean up three sites along the corridor. In 2011, the city was awarded revolving loan grant funds totaling \$1 million for the project.³⁰ These funds have been used to develop a pedestrian-friendly, mixed-use destination district in downtown Tallahassee that connects two major universities.³¹ More than ten years into the plan, the city is now working on streetscapes and other urban design features to finish the project.

California: Collaboration with State Nonprofit Organization. In 2002, Habitat for Humanity East Bay purchased a brownfield property in East Oakland. Through a \$425,000 low-interest loan from the California Department of Toxic Substances Control (DTSC), Habitat began to investigate and remediate the site, with the goal of creating home ownership opportunities for low-income families. The site will ultimately include 26 single-family, low-income homes. The project has received assistance from the DTSC's Cleanup Loans and Assistance to Neighborhoods (CLEAN) loan program, which helps communities by offering low-interest loans for brownfields cleanups.³²

Providing Incentives to Support Redevelopment

Incentives can be used to encourage desirable behaviors and overcome barriers to brownfields and petroleum brownfields redevelopment. Common incentives include tax credits, rebates, cancellation of delinquent taxes, or permitting benefits, such as expedited processing or expedited comprehensive plan amendments. In principle, such incentives are straightforward, but it can be difficult to ensure that they are used to encourage activities – such as job creation – that are most needed in brownfield redevelopment areas.

Federal and State Tax Deductions and Credits

Several federal tax credits and deductions can be used independently or combined to fund brownfield redevelopment projects. Potentially available deductions and credits include the federal brownfields tax deductions, the New Markets Tax Credit, the Low Income Housing Tax Credit, the federal Historic Rehabilitation Tax Credit, renewable energy tax credits, and energy-efficient tax credits. Each of these credits or deductions has specific eligibility requirements that make them appropriate for use with certain types of properties and projects. In many cases, credits and deductions from different categories can be combined to further increase the available tax credit financing for a project. While tax credits and deductions without capital contributions cannot usually support a project in its entirety, they frequently play an important role in building complex funding packages for large remediation and redevelopment initiatives.

The federal brownfields tax deduction applies most directly to brownfield cleanup costs, and was expanded to cover petroleum-contaminated sites in 2006.³³ The deduction works by allowing a taxpayer who incurs qualified cleanup expenses to deduct 100% of those costs in the year they are incurred, rather than requiring them to be capitalized over time. To be eligible for this deduction, (1) the taxpayer must own the site at the time the cleanup costs are incurred; (2) the land must be used for business purposes or for income production; (3) hazardous substances or petroleum contamination must be present or potentially present on the site; and (4) the taxpayer must receive certification through the applicable state agency that the site is categorized as a brownfield and thus eligible to claim the tax incentive.³⁴

In addition to federal brownfields tax credits, some states provide their own tax credits. In New York, tax credits are available for taxpayers who incur costs for site cleanup, groundwater cleanup, and site redevelopment.³⁵ New York also allows a reduction in real property taxes for remediated brownfield sites.³⁶ Florida provides a Voluntary Cleanup Tax Credit that applies towards cleanup costs incurred at contaminated sites in designated brownfield areas.³⁷ The Florida Department of Environmental Protection awards \$5 million in tax credits annually to eligible participants who enter into a Voluntary Cleanup Agreement.³⁸ In Illinois, a bill that would provide state brownfield income tax credits (SB 3212) was passed by the State Senate in March 2012, and a similar version was passed by the House later that year. The bill would allow developers to apply to the Department of Commerce and Economic Opportunity for tax credits to use against any income tax liability related to remodeling, rehabilitating, modernizing, or remediating contaminated property in the state. However, the 2012 legislative session ended before the bill was signed into law.

The New Markets Tax Credit is a federal program intended to spur redevelopment efforts in economically distressed areas. The program is administered through the U.S. Treasury Department, which manages a Community Development Financial Institutions Fund. The Fund receives annual tax credits that are distributed to qualified Community Development Entities (CDEs). Approximately 4,000 organizations are currently certified as CDEs by the Department of the Treasury,³⁹ including local government economic development programs, small business development corporations, nonprofit development programs, and specialized investing companies. Brownfields developers may apply directly to a CDE for investment credits.

Community Engagement: Environmental Justice Issues

Brownfields, including petroleum brownfields, are often concentrated in low-income areas that already suffer from a combination of environmentally harmful land use, economic underdevelopment, and lack of adequate public services.⁴⁰ Sustained community engagement in brownfields redevelopment and decision-making is critical to achieving positive and lasting redevelopment benefits and can also help promote environmental justice.

In Dekalb County, Georgia (an urban area that includes portions of Atlanta), local government officials have incorporated environmental justice planning into brownfields remediation efforts. These efforts are helping to address an industrial history that has resulted in a high concentration of brownfield sites in economically depressed areas. Remediation and redevelopment activities include community outreach meetings designed to inject the concerns of affected communities into redevelopment plans,⁴¹ thus directly incorporating citizen concerns into project design.

The federal historic rehabilitation tax credit (HTC) is another tool that can be used to finance certain brownfields development projects that include preservation and adaptive reuse of historic properties.⁴² The federal HTC can be used to finance the rehabilitation of certified historic properties or uncertified, non-residential properties built prior to 1936. Certified historic properties include structures that are listed or eligible for listing on the National Register of Historic Places or that are a contributing element to a certified historic district. Certified historic properties are eligible for a 20% tax credit, while rehabilitation projects on uncertified structures built before 1936 are eligible for a 10% credit. Eligibility for these credits is determined by National Park Service standards.⁴³ The program is administered jointly by the IRS and the individual State Historic Preservation Offices.⁴⁴ This financing tool can be especially effective for a brownfield project that includes a historic segment of a larger area or corridor-wide development project. It could also be used to restore a historic gas station building and adapt it for reuse; however, the credit cannot be applied directly to cleanup costs.

Currently, thirty-four states also provide state historic rehabilitation tax credits.⁴⁵ While the eligibility requirements vary for each program, these state tax credits can similarly be used as a tool to develop comprehensive financing packages for large-scale redevelopment projects.

The Low Income Housing Tax Credit (LIHTC) is another federal tax credit that can be used to fund brownfield development efforts, specifically development of low-income rental housing on brownfield sites. The federal government allocates LIHTCs to each state annually based on the state's population size. Developers apply to the state housing agencies for access to the credits. Successful developers are able to apply the credits to costs incurred for developing low-income housing. The application process allows the state to direct its credit investments towards identified priorities, which can include anything from promoting development in certain geographic locations to prioritizing brownfields and petroleum brownfields redevelopment.

Rebates

In addition to its Voluntary Cleanup Tax Credit, Florida has successfully used a tax rebate program to encourage brownfields redevelopment. The Qualified Target Industry Tax Refund program, run by Enterprise Florida, Inc. (an economic development public-private partnership), provides a \$2,500 job creation bonus refund as well as a sales tax credit, ad valorem taxes, corporate income, insurance premiums, and other rebates.⁴⁶ Applicants must seek approval to participate in the program, with approved companies receiving tax refunds of up to \$3,000 for each new job created. Additional refund amounts (up to \$6,000 per new job) are available for the creation of new high-wage jobs in targeted industries or new jobs in targeted economic zones. New jobs created in state-designated brownfield areas are eligible for an additional Brownfield Bonus of up to \$2,500 each.

Permitting Benefits

A few states have experimented with methods to encourage local government to create streamlined permitting procedures for brownfields projects. These permitting benefits can reduce overall project expenses or processing time considerably.

Florida: Florida state law⁴⁷ provides for expedited review of all state and regional permit applications for projects located within designated Brownfield areas. The expedited permitting law also allows for expedited local government permits or comprehensive plan amendments for project sites located in participating local jurisdictions.

Massachusetts: In Massachusetts, the Chapter 43D⁴⁸ program allows municipalities to participate in an expedited permitting process.⁴⁹ To be eligible to participate in the 43D program, a municipality must authorize participation via majority vote by the appropriate government body. Once participation is authorized, the local government must establish a single point of contact to handle all permitting matters; amend relevant local laws, regulations, or policies as necessary to ensure that permitting decisions are made within 180 days; establish streamlined procedures for applicants and government decision-makers to identify all permits necessary for a project to begin; clearly communicate the requirements for each permit that must be obtained; and establish standards to determine the completeness of permit applications. To encourage local governments to opt-in to this 180-day expedited permitting program, the state has established some financial incentives. Program participants receive priority consideration for the state's brownfields remediation assistance programs and MassWorks Infrastructure Program grants. The state also actively promotes the benefits of a streamlined regulatory environment for participating localities and highlights designated priority sites in each municipality through online marketing.

Cancellation of Delinquent Taxes

Another method that has successfully been used to encourage redevelopment is to cancel outstanding real property taxes against brownfield sites when existing owners or new purchasers

enter into an agreement with a state's department of natural resources to clean up the site. At least twelve states currently have rules in place to allow such tax forgiveness.⁵⁰ Three such programs are detailed below.

Wisconsin: New purchasers of tax-delinquent brownfield properties are eligible for a waiver of delinquent property taxes under state law.⁵¹ The party requesting tax cancellation from the county for all or a portion of unpaid taxes assessed against contaminated property must have a written cleanup agreement in place with Wisconsin's Department of Natural Resources. The state has created a simple one-page explanation⁵² outlining the procedure for developing a cleanup agreement, in addition to creating the model agreement.⁵³

Indiana: The Department of Local Government Finance may cancel any property taxes against real property owned by a county, township, city, town, or the state by submitting a petition to the auditor, assessor, and treasurer of the county where the property is located.⁵⁴ While this law applies to all government-owned property, regardless of whether it is a brownfield site, there is also a statutory provision that applies specifically to brownfield sites, allowing for a waiver or reduction of delinquent taxes for private property owners.⁵⁵ This statutory provision outlines a procedure that current or anticipated private brownfield owners, who did not contribute to the contamination, can use to petition the county auditor for a reduction or waiver of the delinquent taxes. Indiana has created a fact sheet to help potential private applicants understand the procedure for requesting a tax reduction or waiver.⁵⁶

Illinois: State law allows counties to bid in auctions of tax-delinquent properties on their own behalf or on behalf of local municipalities.⁵⁷ Unlike potential private purchasers, county bidders do not have to pay cash for the properties or pay the delinquent property taxes. Some Illinois counties have formal programs in place for bidding on properties with the intent of transferring title, unburdened by tax liens, to the municipalities. This mechanism allows municipalities to encourage redevelopment without having to find developers willing to take on the challenge of brownfields remediation as well as the need to satisfy large delinquent property tax bills.

It is clear that states can play a critically important role in ensuring that funding is available for brownfields cleanup and redevelopment projects. Whether maintaining eligibility for or directing federal brownfields funds, creating public-private partnerships to leverage funding resources, serving as a resource for developers to easily locate funding information, establishing unique rebates or permitting benefits, or offering tax incentives, successful states have multiple programs in place to ensure that projects that are environmentally and economically beneficial to local communities are not stymied unnecessarily by funding challenges. The flexibility shown by the variety of programs discussed in this section is especially important in the current era of more limited resources. A multi-pronged approach will ensure that there are appropriate resources available to support projects of all sizes and levels of complexity.

Chapter 6: Recommendations for Action

Simplification:

Review existing restrictions on state brownfields funding programs and relax requirements, where appropriate, so as to expand the eligibility pool to include individuals, business entities, and nonprofit groups.

Develop an expedited permitting process for brownfields projects.

Support:

Explore opportunities for new types of public-private partnerships, including joint ventures with nonprofit groups and/or private funding of government staff positions.

Review existing state tax credits and other financial incentives for brownfields projects and consider whether to develop new programs, such as targeted rebates tied to job creation or delinquent real estate tax forgiveness programs.

Information:

Conduct regular reviews of federal and state brownfields funding resources, including deadlines and eligibility requirements. Consider publishing resource guides summarizing this information for local governments, community groups, and private developers.

Notes

¹ 42 U.S.C. § 9628(a).

² Environmental Protection Agency, *2011 State Brownfields and Voluntary Response Programs: An Update from the States*, EPA-560-R-11-001 (April 2011), available at http://www.epa.gov/brownfields/state_tribal/update2011/bf_states_report_2011.pdf; Environmental Protection Agency, *2011 Tribal Brownfields and Response Programs: Respecting Our Land, Revitalizing Our Communities*, EPA-560-F-11-022 (April 2011), available at http://www.epa.gov/swerosps/bf/state_tribal/tribalreport11.pdf. Voluntary response programs and voluntary cleanup programs are state programs designed to encourage the voluntary cleanup of contaminated properties by providing technical assistance and a clear work plan for brownfields cleanup and redevelopment. These programs also typically protect property owners and purchasers from future liability by resulting in a “Letter of Completion” which includes liability protection. See Hawaii State Department of Health, Hazard Evaluation and Emergency Response Office, Voluntary Response Program, available at <http://hawaii.gov/health/environmental/hazard/pdf/vrpfinalcontent8x114sept08.pdf>.

³ Office of Brownfields and Land Revitalization, Environmental Protection Agency, *Funding Guidance for State and Tribal Response Programs, Fiscal Year 2012*, EPA-560-Z-11-001 5-6 (November 2011), available at http://www.epa.gov/swerosps/bf/proposal_guides/fy12-st-final.pdf.

⁴ Environmental Protection Agency, *EPA Brownfields Revolving Loan Fund Grants: Interested in Applying for Funding?* 2 (August 2009), available at http://www.epa.gov/swerosps/bf/grant_info/rlf/rlf_factsheet.pdf.

⁵ Wisconsin Department of Natural Resources & Wisconsin Department of Commerce, *The Financial Resource Guide for Cleanup and Redevelopment* (2009), available at <http://dnr.wi.gov/files/PDF/pubs/rr/RR539.pdf> (hereinafter “*WI Financial Resource Guide*”).

⁶ Wisconsin’s Department of Commerce was disbanded and its responsibilities were transferred to other agencies in 2011. The transfer of its roles and responsibilities to the Department of Safety and Professional Services has been added to the beginning of the guide.

⁷ *WI Financial Resource Guide* (note 5).

⁸ Local Governments and Contaminated Property, Wisconsin Department of Natural Resources, available at <http://dnr.wi.gov/topic/brownfields/lgu.html>.

⁹ Minnesota Department of Employment and Economic Development, et al, *Minnesota Brownfields: A Resource Guide* (2012), available at http://www.positivelyminnesota.com/Government/Financial_Assistance/Site_Cleanup_Redevelopment_Funding/Brownfields_Resource_Guide.pdf (hereinafter “*Minnesota Resource Guide*”).

¹⁰ New Jersey Brownfields Redevelopment Resource Kit: Bringing New Jersey’s Brownfields Back to Life, New Jersey Department of Community Affairs, Office of Smart Growth/Brownfields Program, available at <http://nj.gov/state/planning/docs/brownfieldsresourcekit.pdf>.

¹¹ NADO Research Foundation, *Brownfields Resource Guide for Rural and Small Communities* (2004), available at <http://www.epa.gov/region4/brownfieldstoolkit/brownfields/informational.pdf>.

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Chapter 7 Conclusion

This report examines a wide range of regulatory practices and tools used by states to address petroleum brownfield remediation and redevelopment challenges. Chapter 1 began with an overview of the state's role in petroleum brownfield redevelopment. Following this introduction, Chapter 2 continued with a discussion of emerging state trends, including area-wide development planning and innovative uses of public-private partnerships. Next, Chapter 3 provided an overview of legal tools that states are using to combat common roadblocks to redevelopment. In Chapters 4 and 5, the report analyzed how states can streamline regulatory processes and make information more widely available to spur successful redevelopment projects. Chapter 6 rounded out the discussion with a comprehensive examination of brownfield funding opportunities that states can publicize and make available to developers and other project applicants.

As the Executive Summary notes, the state practices profiled in this report fall into three categories – simplification of redevelopment processes, new forms of support for redevelopment, and greater availability of information. States are taking significant steps in each of these areas. They have successfully identified opportunities to simplify cleanup processes through regulatory reform, rework funding frameworks, and remove barriers to effective public-private partnerships. There is also a need to eliminate artificial, unnecessary distinctions between petroleum and non-petroleum brownfields, much of them stemming from federal law. States are in a strong position to collectively advocate for amendments to federal petroleum brownfields law that would remove the distinctions that effectively establish two separate and unwieldy funding sources for petroleum and non-petroleum brownfields. Currently, there do not appear to be any active efforts to legislatively harmonize state and federal laws and eliminate redundancies. While the current approach of developing new regulations and entering into state-federal Memoranda of Agreement may be more politically feasible, an amendment to federal petroleum brownfields law would be a more direct and effective way to simplify the current two-track legal scheme.

States have also identified innovative new ways to support brownfields redevelopment projects. For example, they have expanded public outreach efforts to solicit public input and help build support for redevelopment. Such efforts can help avoid public opposition to projects often based on misunderstandings and lack of information. Chapter 6, which provides a small window into the complexity behind funding packages for brownfields redevelopment projects, highlights additional opportunities for states to provide support through a wide range of grants and financial incentives.

States have also taken significant steps to increase the availability of statistical information about brownfields and to present it in more useful formats. Public databases, GIS, and Google Maps are excellent examples of how states can use technology to provide more accessible information. Data on the availability of parcels, land use restrictions on specific parcels, and successful model redevelopment projects can all provide the factual support and background information necessary for potential developers to get a project off the ground. Yet despite all of the advances

in information tracking and presentation, adequate statistical information is still lacking in several key areas. For example, there is very little data currently available about the use of environmental insurance, including whether state discount programs are encouraging greater use. Nationwide, sales of environmental insurance have increased by approximately 10% since 2009, but in researching this report, the authors were unable to find any reliable research on whether state discount programs can be credited for the increase. Moreover, much of the information available online is difficult to find, making it challenging for potential developers to identify state insurance subsidy programs that might be available for specific projects.

Another significant shortfall concerns the lack of petroleum-specific tracking information in most states. There is also an overall lack of detail in record-keeping and sharing of records across agencies. More data, especially regarding the success of redevelopment projects many years after state involvement in remediation, is sorely lacking. Additional information about long-term outcomes could provide greater certainty for investors and thus increased success in getting projects off the ground. More information about the outcome of public investments in brownfields redevelopment could also build support for greater public investment. Researchers for this project failed to find any studies looking at whether improvements in the availability of brownfields information has actually translated into a larger number of successful brownfields remediation and redevelopment projects. This is a research gap that should be explored.

In the face of persistent problems surrounding petroleum and non-petroleum brownfield sites in recent years, states are implementing innovative new strategies to catalyze remediation and redevelopment. By developing strategies to simplify regulatory processes, increase the availability of useful data, and provide support to project developers, states have developed successful methods and effective tools to address the problem of underutilized land within their communities. While statutory changes, additional research, and greater financial resources are still needed, the state efforts highlighted in this report hold great promise to accelerate brownfields and petroleum brownfields remediation.

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