

Remediating and Redeveloping Brownfields in New Jersey

A Guide for Municipalities and Community Organizations



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Remediating and Redeveloping Brownfields in New Jersey A Guide for Municipalities and Community Organizations



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TABLE OF CONTENTS

Introduction	4
What is a Brownfield?	4
Effects of Brownfields	4
Benefits of Brownfield Redevelopment	4
Brownfields and Open Space	5
The Process	5
Key Players and Their Roles	6
Who Are the Key Players in Brownfield Redevelopment?	6
Role of the Licensed Site Remediation Professional	6
Role of Community Groups	6
Public Notice and Information about Contaminated Sites	7
Role of Municipalities	8
The Language and Process of Brownfields Remediation	10
Preliminary Research	11
The Importance of Due Diligence	12
Site Assessment and Investigation	12
Site Remediation: How Clean Is Clean?	13
Understanding Your Legal Obligations	14
Controlling Laws	14
Managing Your Liability	14
Prospective Purchaser Protections	16
Sources of Technical and Financial Assistance	16
Federal Government Resources	16
New Jersey Government Resources	17
Appendix A – Guidance, Regulations and Laws	19
Appendix B – Acronyms and Remediation Process Definitions	22
Appendix C – Government and Nonprofit Organization Contact Information and Brownfield References	24
Appendix D – Financial Programs and Agencies	26

Introduction



What is a Brownfield?

Brownfields are found across the Garden State in urban, suburban and rural communities. Many of us drive or walk past them every day. Like many unoccupied properties, brownfields may contain deteriorating buildings with broken glass and litter, becoming unsafe places for children to congregate or an eyesore for the neighborhood. This guide will examine the activities and laws that are involved in transforming brownfields into productive neighborhood assets.

A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. (Note: Brownfields are a large class of properties, not to be confused with Superfund/National Priority List sites. Superfund sites generally have more complex or dangerous contamination problems and are overseen by the [U.S. Environmental Protection Agency \(USEPA\)](https://www.epa.gov). The 220+ Superfund sites in New Jersey, in various stages of assessment, cleanup, delisting or monitoring, are listed on the EPA's website at www.epa.gov/superfund/sites/npl/.)

Common examples of brownfield properties are former manufacturing, processing or transportation facilities, dumps, gas stations, dry cleaners, and many others. The possible or actual contamination complicates the brownfield property owner's ability to expand, redevelop, or reuse the site. The unknown extent of the contamination, and therefore the liability and cleanup costs, make the property unattractive to potential buyers and redevelopers.

Effects of Brownfields

Brownfield conditions have many negative effects:

- Pollutants on a particular site may affect air, water and soil in the surrounding area.
- Activity on the site can expose workers, nearby residents, or trespassers to toxic substances through contact, inhalation or ingestion.
- Unsafe structures and conditions present physical health hazards, especially for children who may use the site as a place to play or explore.
- The property is a drain on the local economy since it generates limited or no tax revenue. The vacant or deteriorating condition of the site has a negative economic and social impact on the surrounding neighborhood.

Benefits of Brownfield Redevelopment

Municipalities benefit when brownfields are cleaned up and redeveloped. In addition to the health and ecological benefits of removing hazardous substances, the cleanup and reuse of sites that have already been disturbed takes development pressure off open lands that perform important ecological, agricultural or recreational functions for the community. In addition, a brownfields site in a community that is lacking open space or recreational resources might be converted, after cleanup, into a much needed municipal park or civic space.

Many older manufacturing and commercial facilities have good redevelopment potential because of their commercial-scale water and sewer infrastructure and proximity to transportation systems and a workforce. Redevelopment of these properties can be a catalyst to improve the quality of life for the surrounding neighborhoods, removing blight and increasing the tax base.

Brownfields and Open Space

While most brownfields remediation projects result in residential and commercial building, state and local officials have shown a growing interest in turning brownfields into green spaces. Urban parks and playgrounds serve as economic assets since they make neighborhoods more attractive, increase local property values and attract additional property investments from residents and businesses. Old industrial and waste facilities were often located along rivers, and these types of brownfields offer potential as part of a river greenway for trails and wildlife habitat. Despite their contamination, many waterfront sites have grown over and are already providing scarce habitat in urban areas.

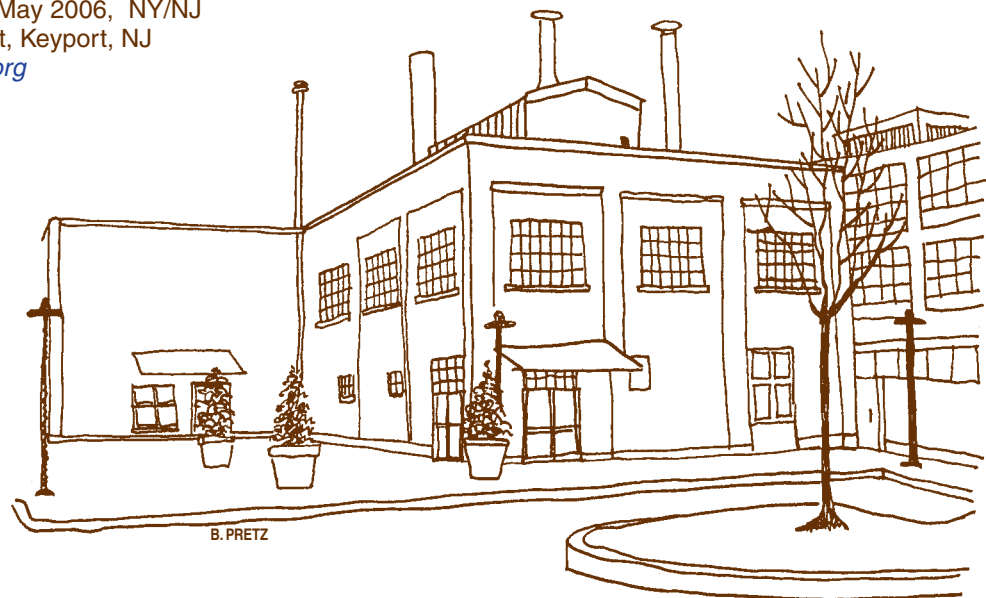
When brownfields sites are “recycled” into parks or preserved open space, communities benefit from improved water quality and community health, increased recreation and tourism, and an improved quality of life. In the NY/NJ Baykeepers’ *Brownfields to Greenfields* paper¹, the Wildlife Habitat Council cites over a dozen benefits of implementing ecological

enhancements during the remedial process and as a final end use, including attracting wildlife, enhancing natural attenuation and biodegradation remedies, controlling dust, buffering stream banks, improving groundwater discharge, providing habitat or harvestable resources (e.g. community gardens), and providing environmental education opportunities.

The Process

It is important to understand that brownfield redevelopment has two distinct components – the remediation (cleanup) and the planning and development of a new use on the site. Although these two processes are usually combined into one redevelopment project and can often influence each other in important ways, they are regulated by different laws and entities. The site contamination investigation, cleanup plan, implementation and final closeout are carried out under State of New Jersey regulations, now implemented for the most part by private NJ Licensed Site Remediation Professionals. The reuse of a site (that is, what can be built on the site after cleanup, and how) is determined by municipal zoning ordinances and/or a redevelopment area plan (under the State’s Local Redevelopment and Housing Law), reviewed by the municipal land use board (and redevelopment agency, for a redevelopment area) and overseen by local building officials.

¹ *Brownfields to Greenfields*, May 2006, NY/NJ Baykeeper®, 52W Front Street, Keyport, NJ 07735, www.nynjbaykeeper.org



Key Players and Their Roles

Who Are the Key Players in Brownfield Redevelopment?

- Neighbors, local citizens and community groups
- Property owners
- Licensed Site Remediation Professional (LSRP)
- Prospective buyers and developers
- Lenders and investors
- Professional support (attorneys, realtors, planners, architects, PR firms)
- Technical professionals
- Government (municipal, county and state)



Role of the Licensed Site Remediation Professional (LSRP)

The Site Remediation Reform Act (SRRRA) of 2009 gave the responsibility for supervising all remediation projects in the state of New Jersey to LSRPs. The LSRP is hired by the remediating party to oversee all day-to-day evaluation, planning and implementation of cleanups. By law the LSRP must comply with the SRRRA's implementing regulations, the [Administrative Requirements for the Remediation of Contaminated Sites](#) (ARRCS). Keeping protection of public health, safety and the environment as their top priority, the LSRP will shepherd the site all the way through to issuance of the completion report, called a Response Action Outcome (RAO). In addition to retaining and paying the LSRP for their services, the remediating party must also pay certain fees to the state. Fees are based on site-specific characteristics (number of areas of concern and environmental media impacted). Fees can be up to a few thousand dollars per year for the duration of the cleanup, though municipalities may request a waiver due to budget constraints.

Role of Community Groups

While brownfields redevelopment requires an array of professional players, equally critical is the involvement of people who live and work in the area – community members and their organizations. Brownfields represent an opportunity for citizens, government and nonprofit organizations to collabo-

rate. Unfortunately, once a cleanup has begun or the municipal land use board has approved a use or site plan, it is too late for the community to have significant input. To be effective, the community has to get involved early, before an owner or developer has invested heavily in a plan of action for a site.

In rare situations, a community nonprofit organization raises funds² or partners with the other entities to acquire a brownfield site, clean it up, and develop it into a community resource such as a park or affordable housing. But in most cases, the community organization's role is to give voice to the problem and collaborate with the municipality, calling attention to the potential impacts of a brownfield area and pressing for action. This collaboration includes participating in municipal land use planning – visioning and discussions about the appropriate reuse of the brownfield once remediated. Through zoning, designation of redevelopment areas, and acquisition, a municipality has the power to be an active player in what becomes of its brownfields. Ideally, this process is informed by an active, involved community.

Community-building organizations, regardless of their current activities, can use brownfields as an issue to bring disparate groups to a common table

² Nonprofits are eligible for USEPA Cleanup grants of up to \$200,000 per site.

to promote long-range, comprehensive redevelopment planning. Brownfields can be the reason that government, community groups and private interests such as developers and banks work together for a common good. Collaborative approaches include community visioning, strategic planning and charettes that involve all stakeholders, including municipal officials, developers and local residents, in discussing development scenarios. A strong community vision and plan can result in a project that benefits the neighborhood.

A concerned community group, economic development association, municipal environmental commission or other local governmental entity might kick off a comprehensive brownfield planning process by developing an inventory of the potential brownfields in a municipality. An inventory and map provide a good starting point for identifying a town's stagnant and potentially contaminated properties. This view allows the town to see the scope of its brownfields problem and, perhaps, to begin to identify opportunities. To develop an inventory, one can collect information from online lists such as [NJDEP's Known Contaminated Sites List](#) and the SiteMart Database for Brownfield Properties (www.njbrownfieldsproperties.com), conduct a 'windshield survey' and solicit input from local officials, tax collector, property owners and realtors. This kind of inventory is preliminary; it is not necessary or even advisable to include great detail. The purpose is to depict the big picture and spur discussion. USEPA Assessment grants are available to local governments interested in developing a brownfields inventory.

All local land use (zoning) and redevelopment planning in New Jersey must give public notice and

hold public hearings, but the community has to be vigilant and proactive to be aware and involved when these processes are occurring. If a municipality has not already developed specific redevelopment areas or plans for its brownfield sites, community groups and the public can work to promote and have input into these plans. By not doing so, they miss an opportunity to improve their community, and they may be unhappy with the outcome of the redevelopment that occurs. The community's involvement may also spur interest and innovation, resulting in more brownfields being returned to productive use.

Public Notice and Information about Contaminated Sites

The NJ Department of Environmental Protection (NJDEP) has established rules for public notification within the ARCS. ARCS requires that public notification be conducted 14 days prior to commencing field activities associated with the Remedial Action (RA). However, NJDEP strongly encourages earlier public notice in the Remediation Investigation (RI) phase, and intends to amend the ARCS rule accordingly. Public Notification includes signs or notification letters, and in some cases where contamination has migrated off site into the soil or into groundwater, fact sheets are required. Public notice must include contact information for the remediating party and the LSRP. Additionally, documentation of public notification must be sent to the county health department, local health agency, and municipal clerk when the notification is conducted. Visit the NJDEP website for the most up-to-date rules and guidance on public notification.³

³ www.state.nj.us/dep/srp/guidance/public_notification/

CASE STUDY

Socafé, Newark — A Collaborative Approach

The owner purchased the Malvern Street site in Newark's Ironbound district with the hope of converting an empty warehouse into a storefront business. Unfortunately, the owner discovered a 2000-gallon fuel tank lying beneath the property while doing a repair on a sidewalk. The owner's contacts with the NJ Commerce, Economic Growth and Tourism Commission, NJDEP and other government agencies helped her navigate the regulatory process and obtain financial assistance through the Petroleum Underground Storage Tank Remediation Upgrade and Closure Fund. With financial assistance and regulatory guidance, the owner was able to convert an empty warehouse into a successful restaurant, serving over 400 regular customers.



NJDEP

Pursuant to ARRCs (N.J.A.C. 7:26C-1.7(o)), the Responsible Party for a contaminated site and the LSRP for the site, if designated as the responder by the Responsible Party, are required to respond to public inquiries either received by them directly or received by NJDEP and sent to them. Complaints about lack of response to inquiries are handled through NJDEP's Office of Community Relations. Failure of the Responsible Party to conduct public outreach when required can result in a penalty of \$10,000 and a Notice of Violation. If the designated LSRP does not respond appropriately, the LSRP may be referred to the Site Remediation Professional Licensing Board. Full guidance from NJDEP on complying with public inquiry requirements is available in their October 2012 Public Inquiry Policy Document (www.state.nj.us/dep/srp/guidance/public_notification/public_inquiry.doc).

Role of Municipalities

Municipal Land Use Planning

New Jersey's Municipal Land Use Law gives municipalities the power to develop their vision for future land use in their towns through the municipal master plan, adopted by the planning/land use board. The municipal government implements that vision by passing zoning ordinances, which specify the uses and intensity of development permitted in districts. Through this process a municipality can analyze some or all of its brownfields properties, develop a vision for their reuse, and adopt zoning that helps to implement that vision. For example, a former industrial site or cluster of sites could be rezoned so that any future development would be consistent with surrounding uses – such as a particular type of residential or commercial use.

Designation of Redevelopment Areas

The New Jersey Local Redevelopment and Housing Law allows municipalities to designate blighted properties or clusters of properties as an “area in need of redevelopment.” The designation is meant to facilitate the redevelopment of properties that have conditions that make them unlikely to be developed through normal market processes. The law allows a municipality much greater latitude to specify what uses it desires in the area, to designate redevelopers for individual projects, and to provide financial incentives in the form of tax abatements and Redevelopment Area Bonds for the redeveloper(s). Many brownfields areas in New Jersey are designated as, or incorporated into, redevelopment areas.

Public-Private Partnerships

Municipalities can work out a cooperative agreement with a private developer to provide a source of income from the project that will help the private developer to recoup his/her outlay in some aspect of the project. For example, a municipality could contract with a developer who builds a municipal public parking structure to receive income from the use of the deck. Or a developer might build a facility that will be leased by the municipality. In some cases, a municipality can contribute a parcel of land to a redeveloper or sell it at a reduced price, in “trade” for the developer incorporating a desired public benefit into a project.

Property Owner Outreach

Where brownfield properties have not been abandoned, the property owner should be brought into discussions about future use. Property owners can stall any plans envisioned by others for the property, so it is worth the time and effort to work cooperatively with them when possible. For example, the owner most likely has an “affirmative” obligation under the Site Remediation Reform Act (SRRA) of 2009 to remediate any contamination that exists on the site within a proscribed timeframe, but the owner may not have resources to conduct the required environmental work. The property itself may be the owner's largest asset, and he/she may believe that continuing a marginal use, or no use, of the property is the best strategy for the present time. The property owner should be included in discussions about the site's future, covering topics such as compliance with taxes and local ordinances, cleanup funding, community issues, and potential redevelopment area designation.

Access Government Resources and Assistance

A municipality or its redevelopment agency can be a great asset in networking and accessing government resources that will facilitate cleanup and redevelopment of a brownfield. Local governments are eligible for most, if not all, USEPA and state brownfields grants. In communities where both private sector interest and land values are low, access to public funds can put the local government and the community in the driver's seat, not only for the assessment and cleanup of a property, but also ultimately for the identification and selection of a developer.

Acquire Properties

A municipality can, of course, decide to obtain or retain ownership of a brownfield, remediate it and develop it for a municipal and/or public use – as a park, civic facility, parking structure, municipal or

DPW building, library, or public housing. The municipality might also elect to acquire a derelict property through either redevelopment law or foreclosure, clean it up and offer it for sale to a developer.

CASE STUDY

Former Magic Marker/Gould Battery Site

Trenton, New Jersey

Community efforts to revitalize the Magic Marker site in Trenton, NJ, began soon after the plant shut down in 1989. Isles, Inc., a local non-profit organization concerned about community health, worked with residents to call attention to the site's blight, dangers and potential health threats. The partnership between Isles and local citizens, and their subsequent outreach efforts, drew the attention of the local, state and federal governments. In 1992, NJDEP conducted the first investigation, identifying lead and many other contaminants in soil, surface water, groundwater and sediments.

The Northwest Community Improvement Assn. was formed in 1995 and mobilized additional residents in the area, conducting monthly meetings to address issues and monitor progress. The resulting partnership between the community and local, state and federal government maintained significant momentum, raising awareness and conducting outreach programs with the goal of educating and empowering the community. The City of Trenton foreclosed on the site in 1997 for site control and to allow for access to significant state and federal resources for assessment, investigation and remediation. The city engaged with the community to plan for the future development of the site, resulting in a community-based redevelopment plan for residential and open space.

From 2002 to 2008 the City of Trenton managed the remediation of the site, as a Chapter 11 bankruptcy filing relieved Exide, the last viable responsible party, of its liability. In 2003, the neighborhood was designated as a USEPA Environmental Justice Community, and also designated as one of the first Brownfields Development Areas by NJDEP. Starting in 2004, 18,000 tons of contaminated soil were removed, mostly hazardous waste due to soluble lead. The NJDEP issued a No Further Action letter allowing for unrestricted use of the site in 2007. Over \$3.6 million was spent on demolition, investigations, assessments and remediation. An additional 8,213 tons of contaminated soil and sediment



were removed from the swale and adjacent floodway as part of the adjacent stream restoration project.

This project ultimately resulted in the construction of Catherine S. Graham Square, 42 new mixed-income residences on 4.4 acres of land meeting stringent state residential soil cleanup criteria. Approximately two acres of clean, revegetated open space and floodway was created that will reduce local flooding by increasing the holding capacity of the newly daylighted Petty's Run Creek. The economic development created by the project is further enhanced by new residential property taxes from the new houses. The site won the USEPA Region 2 Phoenix Award in 2011.

This long process demonstrated the value of partnerships, and how the motivation of local residents in a low-income neighborhood can generate momentum that can accomplish great things. The events that led to the cleanup and redevelopment of this site provide an excellent case study in patience and perseverance. The partnership between community and local, state and federal government agencies made a lasting and positive difference.

For further information, contact Trenton Brownfields Coordinator J.R. Capasso (jcapasso@trentonnj.org)

The Language and Process of Brownfields Remediation

Brownfields cleanup in New Jersey has a language all its own, one that is not always easy to follow. To be an active participant in a brownfield project, the community organization must understand the process in order to review or oversee the work of LSRPs and other consultants or the NJDEP.

The primary document used by LSRPs and other

environmental professionals is [NJDEP's Technical Requirements for Site Remediation](#) (N.J.A.C. 7:26E or the "Tech Rules"), which describes the minimum requirements needed to investigate and remediate contamination at any site, and the associated [Administrative Requirements for the Remediation of Contaminated Sites](#) (N.J.A.C. 7:26C or "ARRCS"). A flow chart of the process is provided below.

Nine Steps to Brownfield Redevelopment

Determining the state of the site:

- Step 1 Hire an LSRP unless you are only performing transactional due diligence;
- Step 2 Conduct a **Preliminary Assessment (PA)** and/or **Site Investigation (SI)** if necessary;
- Step 3 Review the above information to determine if the site can realistically meet the needs of all stakeholders involved;
- Step 4 With LSRP, conduct a **Remedial Investigation (RI)** to determine the extent of the contamination and cleanup costs;

Finding a Viable Path Forward:

- Step 5 Contact [NJDEP](#), [Brownfields Redevelopment Interagency Team \(BRIT\)](#), [EPA Brownfields Program](#), [New Jersey Environmental Infrastructure Trust \(NJEIT\)](#) and [New Jersey Economic Development Authority \(NJEDA\)](#) to determine available grants and loans available for the project;
- Step 6 Review all of the above information to determine total costs, including liability issues, oversight costs and potential unforeseen costs;
- Step 7 LSRP prepares a **Remedial Action Workplan (RAWP)** if required, consistent with the project design for residential, commercial and/or industrial reuses;

Implementing the Plan:

- Step 8 Prepare the required **Deed Notice (DN)** (formerly called Declaration of Environmental Restriction) if the RAWP proposes to leave some contamination on the site, and the required **Classification Exception Area (CEA)** if groundwater contamination exceeds NJDEP standards, and obtain the permits now required;
 - Step 9 Complete all remedial activities and obtain a **Response Action Outcome (RAO)** from the LSRP.
- Note: Whatever remedial action is put into place, three groups of people may have the responsibility of inspecting and maintaining the engineering controls: person responsible for the remedial action, party responsible in any way for the hazardous substances causing the contamination, and subsequent owners/operators of the site. When dealing with institutional controls like caps or deed restrictions, the responsible parties should be fully informed and equipped to handle their responsibilities.

For Acronyms and Remediation Process Definitions, see Appendix B, page 22.

For web sites and phone numbers see Appendix C, page 24.



Preliminary Research

What if the site being considered for redevelopment is suspected of being a brownfield but is not listed on the NJDEP Known Contaminated Sites List? Some preliminary research may help determine the complexity of the site and the feasibility of redeveloping it. Given that the site is a suspected brownfield, there are a number of sources that may reveal preliminary environmental information, including local government records and private database searches. Getting this kind of information can be time-consuming and costly but needs to be done if a municipality or community organization is interested in redeveloping the property on its own. Obtaining this information in advance can also be useful for developing a scope of work and contracting for environmental services. If gathered in accordance with state standards, the contracted consultant can sometimes use the information in the preparation of the PA and SI reports. It should also be noted that data sources are not always updated in a timely and accurate manner, and errors and omissions do occur.

Public Information

There are a number of public sources for gaining additional information on environmental conditions. Information on previous investigations and/or reported incidents that may have impacted the site can be obtained from local agencies, such as:

- city or county health departments;
- fire departments;
- building departments.

Database Service Providers

Purchasable environmental reports are also available that can later be included as part of the PI. These services gather risk management information from a variety of sources including government agencies, libraries and public and proprietary services. One of the largest such providers is Environmental Data Resources (www.edrnet.com). The services can also provide historic information, such as aerial photographs, Sanborn Fire Insurance Maps and city directories. These resources can reveal extensive details about past uses and/or environmen-

CASE STUDY

Berry Lane Park

17 Acres of Blight Become a Green Community Resource

In 1997, Jersey City applied to the USEPA's Brownfields Area-Wide Planning Program for a grant to do visioning and planning for a degraded area around the former Morris Canal, now dominated by rail yards, junk yards, chop shops and other degraded industrial facilities. All were contaminated to some degree with metals (including hexavalent chromium and PCBs) and petroleum. The community, which had no parkland or athletic fields at the time, wanted to see these sites cleaned up and converted to recreational facilities and open space. It seemed like a pipe dream.

However, over the next several years, the city made a commitment to the project, giving its Redevelopment Agency (JCRA) the go-ahead to investigate 12 sites comprising 13 acres and 47 tax lots. The Agency began to negotiate with owners in 2006, acquiring properties through a combination of tax liens, foreclosure, and outright purchase, using developer contributions, NJ Green Acres money, Hudson County Open Space grants, and Jersey City capital funds. As the project gathered steam, JCRA hosted three community design charrettes in 2008, creating a plan for a park that, when finished, would be the city's largest.

After acquisition, the serious work of remediation and cleanup began. JCRA applied for multiple EPA grants to carry out assessments of contamination, then pursued USEPA and NJDEP cleanup funds and 'responsible party' cleanup claims to help cover the costs of removing underground storage tanks, metal drums, buildings and tons of contaminated soils, and capping of the entire site. The cleanup costs exceeded \$10M.

The fun part – creating athletic fields and open space amenities – is in process, using public and private funding. When complete in 2014, Berry Lane Park will feature two basketball courts, two tennis courts, a baseball field, a soccer field, a spray park and a playground, in addition to passive recreation areas featuring 600 trees and a rain garden. The city's efforts in this neighborhood are greatly improving the quality of life of its residents, and will undoubtedly attract private investments that far exceed the city's expenditures.

tal impacts to property. For example, Sanborn maps provide detailed information about previous buildings and manmade features that help understand former uses. In addition, these data resources show potential environmental concerns in the area of the target property, such as facilities known to store and/or use hazardous materials, as well as known contaminated sites that may be impacting the brownfield site.

The Importance of Due Diligence

An important lesson learned from past efforts is that additional contamination might be found at any stage, even when the parties involved believe all the contamination has been identified. Additional areas of environmental concern will add to the final cleanup costs. Undertaking a comprehensive environmental investigation at the start of the project can minimize, if not completely avoid, unexpected costs and project delays. Even at a site that has already received regulatory closure, a thorough investigation can often result in the identification of contamination issues that were not previously identified or not addressed in a manner consistent with current standards. For example, only within the past decade have concerns about vapor intrusion (migration of chemicals from soil or groundwater into indoor air) been routinely incorporated into site assessment and remediation protocols.

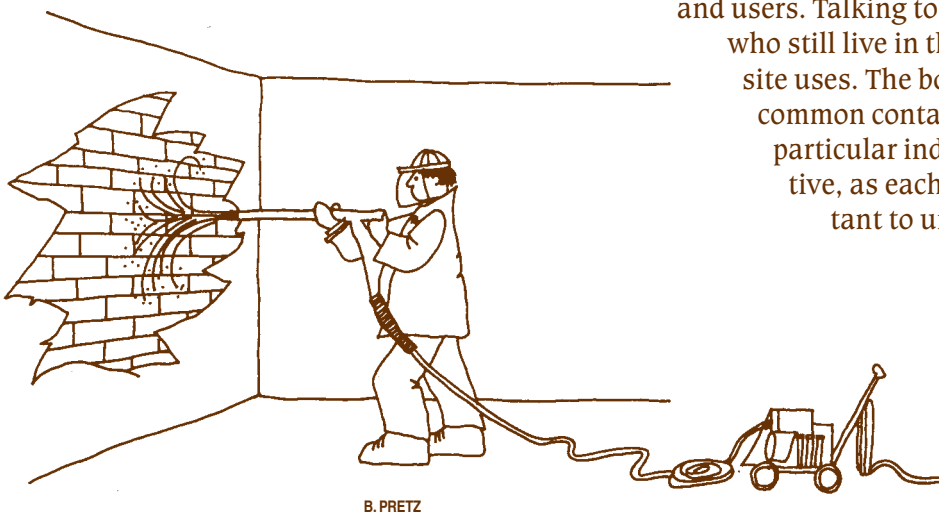
Conducting a robust site assessment prior to purchasing a contaminated property is also a necessary step to avoid becoming a liable party under federal or state law with respect to the contamination. Two evaluation protocols can be applied when conducting a due diligence assessment to accrue liability protections: the federal protocol and the New Jersey protocol. Any qualified environmental professional can conduct the federal due diligence assessment, called All Appropriate Inquiry. The state due diligence assessment, called a Diligent Inquiry, may have to be conducted by an LSRP (depending on whether or not you are the party responsible for the discharge). Involvement of an LSRP can make the Diligent Inquiry assessment more expensive, so it might be more cost effective to start with the federal All Appropriate Inquiry, which can be augmented by an LSRP to meet state requirements upon a business decision to proceed with site acquisition.

Site Assessment and Investigation

Community members are usually well aware of a vacant lot or decaying industrial building located in their neighborhood. What additional information do you need to understand the site better?

For starters, past ownership and a description of previous commercial activity may provide clues as to the types of chemicals handled at the site. For instance, a dry cleaner probably handled chlorinated solvents, meaning a vapor intrusion investigation is likely needed.

Many brownfield sites have had multiple owners and users. Talking to neighbors or former employees who still live in the area might help discover past site uses. The box on page 13 shows some more common contaminants associated with a particular industry, but the list is not exhaustive, as each site is unique. It is also important to understand that some sites may



B. PRETZ

not be identified as polluted, but that the state has tagged them as brownfields because of their potential to be contaminated based on past use.

For brownfield sites that pose an immediate threat to public health or the environment, contact the [NJDEP Environmental Action Line](#) immediately at 1-877-WARNDEP (877-927-6337).

Site Remediation: How Clean Is Clean?

If the Remedial Investigation of the brownfield site establishes contamination exceeding state standards, the source of contamination must either be removed from the site or be controlled by other mechanisms prior to any development on a site. As mentioned above, the site remediation process is controlled by NJDEP's Rule, titled Technical Requirements for Site Remediation. The requirements take into account the following four factors:

- type and toxicity of contamination (standards for 163 chemicals);
- potential exposure pathways (ingestion, dermal, inhalation, vapor intrusion, groundwater);

- current and future use (residential and/or non-residential);
- impact on the environment.

In addition, if the Remedial Action Workplan (RAWP) calls for leaving contamination in place, state law requires parties involved in the cleanup to place institutional or engineering controls via permits established under SRRA on the property (such as a deed or groundwater use restrictions) to ensure that future generations maintain restricted use of the land.



TYPICAL INDUSTRY

POTENTIAL CONTAMINANT

Automotive garages/body shops	Waste oils, paints, cleaners, solvents, scrap metals
Dry cleaners	Petroleum products, chlorinated solvents
Dye works	Acids, metals
Electrical substations	Polychlorinated biphenyls (PCBs)
Electroplating operations	Metals
Farmlands	Pesticides and heavy metals such as arsenic and copper
Gasoline stations	Petroleum products, lead, chlorinated solvents
Glass factories	Metals
Hospitals	Formaldehyde, radionuclides, solvents, chemotherapy, chemicals, infectious materials
Laboratories	Explosive, corrosive, flammable, radioactive materials
Landfills	Metals, organics, PCBs, various wastes
Leather factories	Volatile organics such as benzene and toluene
Manufacturing plants	Petroleum products, solvents, metals, PCBs
Marine maintenance yards	Solvents, paints, cyanide, acids, heavy metals
Petroleum refining sites	Petroleum hydrocarbons
Pharmaceutical factories	Lead, solvents, organics
Plastics factories	Polymers, solvents, phthalates, cadmium
Print shops	Solvents, inks, cleaners
Railroads/rail yards	PCBs, petroleum products, lead
Salvage yards	Petroleum products, lead, degreasers, asbestos, dioxin
Smelter operations	Metals (such as lead, copper and arsenic)

How to Hire an LSRP

The NJDEP has a list of LSRPs. It is important to interview eligible candidates to find out their past experience on similar projects, professional credentials and certifications, hourly fees, communication skills, references and insurance coverage.

The LSRP can prepare a case file, review an environmental permit, research environmental concerns and conduct a preliminary assessment (PA) to determine if contamination is an issue. An LSRP should also be able to guide you through the regulatory maze and address inquiries from the public about the cleanup.

Request that the consulting firm prepare a written proposal (including a detailed cost estimate and schedule) so you know exactly what will be accomplished during the project. If a consulting firm is not willing to prepare a written proposal, shop around for another firm. A number of small and large consulting firms located around the state can perform environmental site assessments and investigations.

A directory of New Jersey's Licensed Site Remediation Professionals is located at http://datamine2.state.nj.us/DEP_OPRA/OpraMain/categories?category=SRRA.

Understanding Your Legal Obligations

Every party with any responsibility for remediating a contaminated site must follow the 2009 Site Remediation Reform Act (SRRA) requirements and corresponding Administrative Requirements for the Remediation of Contaminated Sites (ARRCS, N.J.A.C. 7:26C). All remediation activities occurring within New Jersey require supervision by an LSRP. Voluntary cleanup programs pursuant to a Memoranda of Agreement (MOA) no longer exist.

Controlling Laws

Various laws at the federal, state and local level apply specifically to brownfields redevelopment. Technical and legislative requirements must be considered as well as state and local development plans.

The federal laws include:

- Small Business Liability Relief and Brownfields Revitalization Act, [Public Law 107-118 \(H.R. 2869\)](#)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), [42 U.S.C. §§ 9601 et seq.](#)
- Resource Conservation and Recovery Act (RCRA), [42 U.S.C. §§ 6901 et seq.](#)

New Jersey state laws and regulations include:

- [Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq.](#)

- [Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-1 et seq.](#)
- [Site Remediation Reform Act, N.J.S.A. 58:10C-1 et seq.](#)
- [Rules for Processing of Damage Claims Pursuant to the Spill Compensation and Control Act, N.J.A.C. 7:1J](#)
- [Regulations Implementing Underground Storage of Hazardous Substances Act, N.J.A.C. 7:14B](#)
- [Industrial Site Recovery Act Rules, N.J.A.C. 7:26B](#)
- [Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C](#)
- [Remediation Standards, N.J.A.C. 7:26D](#)
- [Technical Requirements for Site Remediation, N.J.A.C. 7:26E-5.3](#)

For additional information on Laws and Regulation, see Appendix A, page 19

Managing Your Liability

The liability issue is changing rapidly. In the recent past, liability concerns often presented the greatest barrier to reuse since banks were reluctant to invest in brownfields for fear of finding unknown contamination. The New Jersey Brownfield and Contaminated Site Remediation Act contains language to protect both innocent parties who purchase a brownfield site and clean it up, and financial institutions that provide financial support to redevelopment projects.

Under the SRRA, every responsible party has an affirmative obligation to timely remediate contaminated sites, including operational sites owned by municipalities. However, municipalities and public entities who are working on private redevelopment sites and have innocent party status – i.e., the government entity owns contaminated property for which it is not a responsible party – may be eligible for exemptions and minimized administrative requirements. Depending on the municipality's available budget, it may request a waiver from annual remediation fees, mandatory deadlines, and establishing a remediation funding source.⁴

The New Jersey Spill Compensation and Control Act exempts municipalities from liability in the event that they acquired title to a site either involuntarily, as a result of its sovereignty functions (e.g. tax delinquency, abandonment, etc.); or by any means, to promote the redevelopment of that property. It is important to note that these protections do not apply if the site was being cleaned up at the time of acquisition or if the municipality caused or contributed to the contamination.

⁴ *ARRCS, N.J.A.C. 7:26C, sections 1.4(f), 3.3(a), and 4.3(a)7.*

CASE STUDY

Neighborhood Group Partners with Nonprofit to Protect Parcels, Including a Brownfield

In Voorhees Township (Camden County, NJ), four adjacent parcels of land along the South Branch of the Cooper River included an abandoned municipal wastewater treatment plant, two swampy and forested sites (the Coliseum property – 60% undeveloped – and the Grasso property) and the Abbotts Dairy distribution plant property. In 1984 the dairy was purchased by a heavy equipment refurbisher, who lost it to the municipality in 1989 due to delinquent taxes. The property was contaminated with asbestos, benzene and xylene and classified as a brownfields site.

A developer (Develcom) purchased the Coliseum and the Grasso properties in 2006, and approached Voorhees about purchasing the Abbotts tract, which the Township was in the process of cleaning up. Asbestos was removed from the site, and a plan for remediation of the benzene and xylene through natural attenuation was put in place. Develcom wanted the Township to designate the tracts as a redevelopment area, due to their deterioration and contamination, and proposed 370 condominium units.

Residents from the surrounding neighborhood banded together as the Ashland Residential Coalition (ARC) to fight the proposal. Although the Planning Board favored designation as a redevelopment area, the Township Committee did not act on the recommendation. ARC recommended that Voorhees Township should preserve the area as green space and establish a municipal park on the wastewater treatment site.

Members helped clear the entrance to the proposed park, and Voorhees secured a \$25k grant from Camden Co. to create the John T. Hale, Sr. Memorial Park, dedicated in 2009.

ARC's research found that the areas they were seeking to protect were included in the County's Open Space Plan as well as a *River to Bay Greenway Plan* developed by the Trust for Public Land, and they enlisted the nonprofit's involvement in their campaign. The Trust for Public Land approached Develcom about a conservation land purchase, and secured an option on 19.4 acres. The land was later purchased using NJ Green Acres, municipal and county open space trust funds, and deeded to the Township.

"I am extremely pleased with this purchase. Local residents have known for years that the Ashland Woods property represents a unique ecological oasis in an otherwise overdeveloped area," said Ed Hale, Chair of Voorhees Environmental Commission.

In 2012, the Environmental Commission conducted a feasibility study on adaptive reuse of the Abbotts Dairy property as an Environmental Education Center. The report concluded that it is feasible, and VTEC continues to lobby for this project.

Prospective Purchaser Protections

Private developers are offered protection from state actions and third party damage claims if they did not cause or contribute to the past contamination, conducted Diligent Inquiry prior to site acquisition, and, if necessary, cleaned up the site in accordance with NJDEP rules and regulations. These protections are triggered once the LSRP issues their final report (A.K.A. "Response Action Outcome") to the NJDEP.

Could You Be Liable?

As a brownfield developer, the best way to limit your liabilities with regard to the contamination is to engage an environmental attorney as early in the process as possible. In order for your attorney to craft an effective liability management strategy, you will need to be ready to answer these top four questions:

1. Who are you in relation to the property?
2. What do you know about the history of the property?
3. What do you know about the environmental conditions of the property?
4. What do you plan to do with the property?

Sources of Technical and Financial Assistance

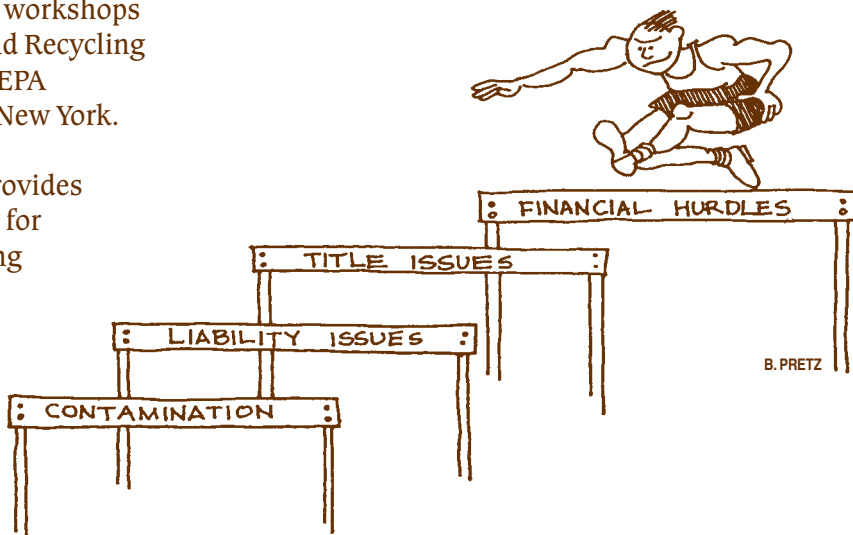
Federal Government Resources

Technical Assistance to Brownfields (TAB) Communities Program, an initiative of the U.S. Environmental Protection Agency (USEPA), provides technical assistance to under-resourced communities, helping them tackle the challenge of assessing, cleaning up and preparing brownfield sites for redevelopment. The main candidates for TAB assistance are community groups, municipal officials and developers. The TAB Program serves as an independent resource providing communities with technical assistance in a variety of forms, such as identifying project funding sources, reviewing grant applications and technical documents, and organizing workshops and webinars. The Center for Creative Land Recycling (www.cclr.org) is the TAB provider for USEPA Region 2, which includes New Jersey and New York.

Program also collaborates with other EPA programs, other federal partners, and state agencies to identify and make available resources that can be used for brownfields activities.

USEPA's Region 2 Brownfields Program has partnered with the New Jersey Business Action Center's Office for Planning Advocacy, NJDEP, and the Center for Creative Land Recycling to form the **InterAgency Working Group (IAWG)**. The IAWG is comprised of a diverse group of experienced state and federal agencies whose mission is to support New

The USEPA's Brownfields Program provides direct grant funding to local governments for brownfields assessment, cleanup, revolving loans, and environmental job training. Some of these grants are also available to nonprofits. EPA's Brownfields



CASE STUDY

Comprehensive Planning for a Brownfields Neighborhood Involving Everyone

The Central Valley was once a busy manufacturing hub, well-known for its hat industry, print shops, shoe factories, breweries and other industries. By the 1970s, most of the manufacturing had ceased, and the area had degraded into a ghost town of brownfields.

The City of Orange and the Town of West Orange (Essex County, NJ) entered into NJDEP's Brownfields Development Area (BDA) program in 2005 to jointly address the Central Valley/Valley Neighborhood, which spans both towns. The thrust of the BDA program is to allow towns with multiple brownfields sites to plan comprehensively, rather than piecemeal, for cleanup and reuse of those properties. Properties within a state designated BDA are fast-tracked for approvals and receive financial assistance for remedial investigation costs and portions of the cleanup in some cases.

Participation in the BDA program required that a steering committee of municipal officials, community residents, developers and property owners be established. The Committee identified approximately 19 commercial, industrial and vacant lots for investigation. NJDEP provided guidance that helped the towns to access investigation and cleanup funds. Just as significant, the program engaged the community and a wide range of stakeholders in a discussion of appropriate redevelopment options for this large area. A nonprofit community development organization called HANDS (Housing and Neighborhood Devel-

opment Services, Inc.) was instrumental in helping coordinate and mobilize the communities, locate resources, and provide continuity of vision from a regional, experienced perspective. HANDS is a developer or co-developer of nine of the impacted properties.

Working collaboratively, stakeholders developed a long-term vision for the Central Valley that includes development of an Arts District, adaptive reuse of some buildings such as the Berg Hat Factory (loft condominiums, art studios, commercial and community arts space), Harvard Press (200 apartments and a river park) and the former Monroe Calculating Company; demolition of many buildings; new construction of commercial, retail and residential projects; and public facilities such as a police station.

All sites have had environmental investigations; most sites were found to have some level of contamination. Cleanups are in process, with ten complete, and many recycled and new buildings are in active use. The Arts District is vibrant and growing.

Not all communities qualify for participation in the BDA program, but they can learn from the experiences of towns like Orange and West Orange: collaborative, proactive, comprehensive visioning, planning and implementation under the guidance of a qualified organization such as HANDS is a winning recipe for brownfields redevelopment.

Jersey's brownfields redevelopment policies and the USEPA's Brownfields Economic Development Initiative, which is designed to empower states, communities and economic development stakeholders to work together in a timely manner to assess, safely clean up and reuse brownfields. Using a proactive and problem solving team approach, the IAWG offers assistance, guidance and resources to municipalities and any of their redevelopment partners as the municipality navigates the complex road to brownfield redevelopment.

For web sites and phone numbers, see Appendix C, section on Federal Government Resources, page 24.

New Jersey Government Resources

State officials have recognized that communities affected by brownfields need to be involved in the redevelopment process and have a role in making the projects a success. Improving public access and involvement in remediation is a goal of the NJDEP's Site Remediation Program.

To assist communities with brownfield redevelopment, the New Jersey Business Action Center's Office for Planning Advocacy manages the [Brownfields Redevelopment Interagency Team \(BRIT\)](#) to provide

the tools for interested parties to develop brownfields in an efficient and timely manner. The BRIT is made up of representatives of numerous state agencies and introduces projects to all affected state agencies and departments. The BRIT enables and facilitates dialogue between the state, the municipality and the developer to identify opportunities and obstacles, as well as applicable financial and technical assistance, early on in the planning process of a project. BRIT can offer information on the resources available from its other agencies, help clarify the necessary steps and enlist the help of relevant state agencies.

In addition, the NJDEP created the [Office of Brownfield Reuse \(OBR\)](#) to serve as the focal point for the Department's brownfield program. OBR coordinates remediation and reuse efforts at specific brownfield sites and pilots innovative approaches to expedite the revitalization process. The first major OBR effort was the [Brownfield Development Area \(BDA\) Program](#). This program works in partnership with selected municipalities and neighborhoods impacted by multiple brownfield sites. The BDA Program coordinates planning, resource acquisition and remediation with a focus on reuse. Individual BDAs are designated through a highly selective application process.

OBR administers several additional programs that support brownfield redevelopment. It has a loan and grant program to investigate and remediate contaminated sites, the [Hazardous Discharge Site Remediation Fund Program](#). OBR also oversees landfill remediation/closure for redevelopment projects and is the liaison to the [NJ Economic Development Authority](#) for state financial incentives

related to contaminated sites. OBR provides federal tax incentive certifications that are required for expensing brownfield remediation costs. OBR provides support to all NJ communities that have received EPA Brownfield grants.

For federal and state financial programs and agencies, see Appendix D, page 26.

Getting started on brownfields remediation

- To learn about resources available from state agencies and required steps to take, contact the [New Jersey Department of State, Office for Planning Advocacy's Brownfields Redevelopment Interagency Team \(BRIT\)](#).
- For information on financing, contact [New Jersey Economic Development Authority \(NJEDA\)](#), [Housing and Mortgage Finance Agency \(HMFA\)](#), or [New Jersey Redevelopment Authority \(NJRA\)](#).
- For information on environmental regulations, contact your LSRP and [NJDEP's Site Remediation Program](#).
- For help with reaching out and communicating with federal, state and local officials, concerned citizens and media, contact [NJDEP's Office of Community Relations, Site Remediation Program](#).

For websites and phone numbers, see Appendix C, page 24.



Appendix A

Guidance, Regulations and Laws

Federal

1. *Small Business Liability Relief and Brownfields Revitalization Act* (“*The Brownfields Law*”),

Public Law No. 107-118, 115 stat. 2356

This 2002 law authorizes up to \$250 million in funds and additional resources for the public and private sectors to promote brownfields assessment and cleanup for reuse. In addition, it expands the definition of what is considered a brownfield, so communities may now focus on mine-scarred lands or sites contaminated by petroleum or the manufacture and distribution of illegal drugs.

2. *Comprehensive Environmental Response, Compensation, and Liability Act* (“*CERCLA*”),

42 U.S.C. §§ 9601 et seq.

Congress enacted CERCLA in 1980, “which authorizes the federal government to assess and/or clean up contaminated sites and provides authority for emergency response involving hazardous materials.”⁵

3. *Resource Conservation and Recovery Act* (“*RCRA*”),

42 U.S.C. §§ 6901 et seq.

Congress enacted RCRA in 1976, which authorizes EPA to establish programs to regulate hazardous waste (Subtitle C), solid waste (Subtitle D), and underground storage tanks (Subtitle I).⁶

New Jersey Brownfields and Contamination Cleanup

1. *Site Remediation Reform Act* (“*SRRA*”),

N.J.S.A. 58:10C-1 et seq.

May 7, 2012 marked the phase-in period for implementing the SRRA, which serves to increase the pace of remediation, thus helping to decrease the threat of contamination to public health and safety and of the environment, and to quickly return underutilized properties to productive use. Key provisions of the SRRA “are to (1) establish the LSRP program and the Site Remediation Professional Licensing Board, which issues licenses to qualified individuals (LSRPs) to conduct the remediation of sites in New Jersey; (2) set

forth the affirmative obligation of every person responsible for conducting remediation to remediate any discharge for which they would be liable pursuant to the Spill Act; and (3) set forth the circumstances under which the NJDEP shall undertake direct oversight, and may undertake direct oversight, of a remediation.”⁷

2. *Administrative Requirements for the Remediation of Contaminated Sites* (“*ARRCS*”),

N.J.A.C. 7:26C

ARRCS (adopted in 2012) is the third phase of NJDEP’s initiative to implement the requirements of SRRA. It lays out the mandatory remediation timeframes for the completion of key phases of site remediation and also provides the requirements regarding direct DEP oversight of a remediation.⁸

3. *Brownfield and Contaminated Site Remediation Act* (*the “Brownfield Act”*)

N.J.S.A. 58:10B-1 et seq.

Aiming to encourage the cleanup and redevelopment of abandoned or under-used contaminated sites, the 1998 Brownfield Act and its amendments contain many incentives for the buyers and sellers of brownfield properties, including monetary incentives through tax abatements, innocent purchaser protection, grants to encourage developers and businesses to reclaim contaminated land, matching grants for conservation, recreation and affordable housing. Additionally, the act created a state Brownfields Redevelopment Task Force made up of public and private members who are charged with preparing an inventory of brownfield sites around the state and prioritizing the redevelopment of the sites based on a number of factors, including economic potential. Legislative amendments signed in 2005 dedicate remediation funds for open space acquisition and development in brownfields. In particular, the amendments establish matching grants up to 75 percent for municipalities, counties and redevelopment entities for the remedial costs for open space and conservation projects and up to 50 percent for the remedial costs for affordable housing projects.

⁵ U.S. Environmental Protection Agency, *The Revitalization Handbook* (2011), <http://www2.epa.gov/enforcement/2011-revitalization-handbook>

⁶ U.S. Environmental Protection Agency, *The Revitalization Handbook* (2011), <http://www2.epa.gov/enforcement/2011-revitalization-handbook>

⁷ NJ Department of Environmental Protection, *Site Remediation Program*, www.state.nj.us/dep/srp/.

⁸ NJ Department of Environmental Protection, *Administrative Requirements for the Remediation of Contaminated Sites* available at <http://www.state.nj.us/dep/srp/regs/arrcs/index.html>

Appendix A

Guidance, Regulations and Laws

Continued

4. *Brownfields Redevelopment and Natural Resource Damages*, P.L. 2005, c.004 (A2444 2R)

This 2005 law provides qualified developers with liability protection against Natural Resource Damages (NRD) claims at brownfields sites. Liability protections apply to properties acquired after January 6, 1998 (effective date of Brownfield and Contaminated Site Remediation Act), and after any hazardous substance discharge. The legislation also provides brownfield developers liability protection for off-site contamination and makes changes to the statute of limitations under which NJDEP can assess NRD claims.

5. *Industrial Site Recovery Act (ISRA) Rules*, N.J.A.C. 7:26B

ISRA is triggered when a property owner attempts to sell property where materials regulated under RCRA (i.e. hazardous substances) were handled. The seller of the property must perform an investigation to determine if there are any areas of environmental concern that may require cleanup. The NJDEP will grant a “no further action” letter once the property owner has demonstrated that no hazardous materials were ever spilled at the site or that cleanup of the hazardous materials has been performed. ISRA is the amended version of the Environmental Cleanup Responsibility Act (ECRA).

6. *NJDEP Technical Requirements for Site Remediation (Tech Rules)*, N.J.A.C. 7:26E

The Tech Rules spell out the minimum criteria required by the NJDEP to investigate and remediate contaminated sites, including brownfields. Environmental professionals use the Tech Rules on a regular basis because they provide guidance on subjects such as site cleanup criteria, sampling requirements, and post-remediation requirements. NJDEP must “establish presumptive remedies for residential development, schools and childcare facilities to ensure that the remedy implemented at the site is protective of human health and safety and of the environment.”

7. *Processing of Damage Claims Pursuant to the Spill Compensation and Control Act (“Spill Fund Rules”)*, N.J.A.C. 7:1J

The Spill Fund Rules establish the NJDEP’s rules for processing Spill Act claims based on the discharge, or threat of a discharge, of a hazardous substance.

8. *Remediation Standards*, N.J.A.C. 7:26D

The soil remediation standards contained in the Remediation Standard Rules became effective on the date of adoption June 2, 2008. The groundwater and surface water remediation standards were previously effective at N.J.A.C. 7:26E-1.13.

9. *Spill Compensation and Control Act (“Spill Act”)*, N.J.S.A. 58:10-23.11 et seq.

The state levy tax on the transfer of petroleum products and other hazardous substances funds the New Jersey Spill Compensation Fund, which the Legislature established to ensure compensation for cleanup costs and damages from spills. The New Jersey Division of Taxation administers this tax.

10. *Underground Storage of Hazardous Substances Act (“USTs”)*, N.J.S.A. 58:10A-21

Under this law, NJDEP regulates underground storage tanks (USTs), and includes a tank registration program and a corrective action program to remediate discharges from USTs, which are found on many brownfield sites.

11. *New Jersey New Residential Construction Off-Site Conditions Disclosure Act*, N.J.S.A. 46:3C1 et seq.

This Act requires a list of “off-site conditions in the municipality, which may affect the value of newly constructed residential real estate,” be made available at each municipal clerk’s office. This list must include Superfund sites and other known contaminated sites.

12. *New Jersey Vacant and Abandoned Properties Act*, N.J.S.A. 2A:50-73

In addition to expediting the foreclosure procedure for vacant and abandoned homes, this 2013 Act also allows municipalities, or entities they may designate as their agents, to obtain an order of possession in court, giving them control of abandoned buildings for the purpose of rehabilitation and putting them back into productive use. Once the court issues an order of possession the entity has full control over the property, including the ability to borrow funds for rehabilitation, obtain construction permits, and the like. Once the entity has rehabilitated the building, if the owner fails to take steps to regain rights to the property, the court can order the property sold and the proceeds distributed.

Appendix A

Guidance, Regulations and Laws

Continued

Guidance Documents

1. NJDEP, *Compliance Advisory for Government Officials:*

DEP Advises Government Entities of Mandatory Remediation Time Frames (March 2012),

www.state.nj.us/dep/srp/general/srra_gov_ent_man_time_frame.pdf.

NJDEP guidance to government entities on compliance with the SRRAs deadlines for submittal of milestone remedial reports.

2. NJDEP, *Quick Reference Guides*, www.state.nj.us/dep/srp/srra/training/quick_reference.html.

NJDEP quick reference guides for its Site Remediation Program.

3. NJDEP, *Site Remediation Reform Act Guidance*, www.state.nj.us/dep/srp/guidance/srra/.

This Guidance Library is provided to comply with the ARRCs rule.

4. New Jersey Department of State, *Business Action Center, Office for Planning Advocacy,*

New Jersey Brownfields Redevelopment Resource Kit,

www.state.nj.us/state/planning/publications/171-brownfields-resource-kit.pdf

The New Jersey Brownfields Redevelopment Resource Kit helps anyone interested in redeveloping brownfields learn about the financial incentives and other resources available to them, as well as navigate the associated regulatory processes and legal requirements. It provides technical and financial resources, prerequisites to qualifying for assistance, and contacts within each New Jersey state agency or department that can assist in the redevelopment process. Resources are organized into the following categories: planning; environmental; financing; infrastructure; housing; retail/industrial/commercial projects; and art & cultural centers, open space & recreation.

5. U.S. Environmental Protection Agency Office of Site Remediation Enforcement,

The Revitalization Handbook (March 2011),

www2.epa.gov/enforcement/2011-revitalization-handbook.

This handbook summarizes the statutory and regulatory provisions of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 et seq. (CERCLA, commonly known as Superfund) and the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq. (RCRA), as well as the policy and guidance documents most useful in managing environmental cleanup liability risks associated with the revitalization of contaminated sites. It is designed for use by parties involved in the assessment, cleanup, and revitalization of sites, and provides a basic description of the tools parties can use to address liability concerns. ■

Appendix B

Acronyms and Remediation Process Definitions

CEA or Classification Exception Area

NJDEP issues a CEA to designate a site where pollutants in the ground water exceed standards. The CEA restricts the use of an impacted aquifer as a public drinking water source until standards are achieved, at which time the CEA may be rescinded.

DN or Deed Notice

(formerly Declaration of Environmental Restriction) Properties must be deed restricted when soil contamination will remain above the NJDEP Restricted Soil Cleanup Criteria even after cleanup activities take place. A DN provides notice to future owners and tenants of the property that contamination above the cleanup criteria will remain on site. The existing property deed is modified to include the location and concentration of all contaminants remaining on site, description of controls to be maintained in order to control off-site spread of the contamination, and the type of future monitoring to keep track of the contamination.

IEC or Immediate Environmental Concern

An IEC is a condition at a contaminated site where there is: (1) confirmed contamination in a well used for potable purposes at concentrations at or above the ground water remediation standards; (2) confirmed contamination that has migrated into an occupied or confined space producing a toxic or harmful atmosphere resulting in an unacceptable human health exposure, or producing an oxygen-deficient atmosphere, or resulting in demonstrated physical damage to essential underground services; (3) confirmed contamination at the site of a nature that either dermal contact, ingestion, or inhalation of the contamination could result in an acute human health exposure; or (4) any other condition that poses an immediate threat to the environment or to the public health and safety.

LSRP or Licensed Site Remediation Professional

LSRP means an individual who is licensed by the Site Remediation Professional Licensing Board or the New Jersey Department of Environmental Protection, in accordance with the Site Remediation Reform Act of 2009.



Oversight Costs

NJDEP's past charges for guidance and appraisal of privately conducted and funded remedial activities that are currently unpaid need to be resolved. NJDEP will charge for their limited involvement in cases overseen by an LSRP.

PA or Preliminary Assessment

The PA is an initial step performed to identify potentially contaminated areas of concern (such as an underground storage tank, surface lagoon, or floor drain) at the site that will require more comprehensive site investigation work. A site inspection for visual contamination and a review of historical records are part of a PA. No environmental samples (such as soil or water samples) are collected during this step. An LSRP typically performs a PA.

Person Responsible for Conducting the Remediation

"Person responsible for conducting the remediation" means (1) any person who executes or is otherwise subject to an oversight document to remediate a contaminated site, (2) the owner or operator of an industrial establishment with an identified discharge, (3) the owner or operator of a leaking underground storage tank, (4) any other person who discharges a hazardous substance or is in any way legally responsible for a hazardous substance that was discharged at a contaminated site, or (5) any other person who is remediating a site.

Appendix B

Acronyms and Remediation Process Definitions

Continued

RA or Remedial Action

The RA follows RI in cleaning up the site. It is the physical remedy to correct a release or threat of a release of a hazardous substance into the environment. The cleanup action can include, but is not limited to, confinement, dredging, neutralization, recycling, removal, reuse and storage or treatment of the hazardous waste.

RAO or Response Action Outcome

An RAO is a written determination by an LSRP that the contaminated site was remediated in accordance with all applicable statutes and regulations, and based upon an evaluation of the historical use of the site, or of any area of concern at that site, as applicable, and any other investigation or action the NJDEP deems necessary, there are no contaminants present at the site, or at any area of concern, at any other site to which a discharge originating at the site has migrated, or that any contaminants present at the site or that have migrated from the site have been remediated in accordance with applicable remediation regulations, and all applicable permits and authorizations have been obtained.

RAWP or Remedial Action Work Plan

A remedial action work plan (RAWP) is developed to implement the selected RA, and may include a detailed description of the RA, cleanup objective, proposed monitoring program, cost estimate, and

project schedule. If a cleanup objective is proposed in the RAWP that differs from the NJDEP soil cleanup criteria, a risk assessment of the proposed remedial option will be required to evaluate any potential hazards to the community.

RI or Remedial Investigation

The RI takes the SI a step further by collecting additional data on the site to determine the appropriate RA (see above). The RI further defines the source of contamination and size of the impacted area, and identifies alternatives for cleaning up the contamination.

SI or Site Investigation

An SI takes the PA a step further by collecting environmental samples (such as soil and groundwater) to determine whether contamination is present in the “areas of environmental concern” (AEC) identified during the PA. The SI will also determine whether any contaminants are present that exceed NJDEP cleanup criteria. An LSRP should perform an SI since it requires special monitoring equipment to properly collect the samples in accordance with NJDEP guidelines. In all likelihood, a chemical laboratory specializing in environmental analyses will analyze the samples. ■



Appendix C

Government and Nonprofit Organization Contact Information and Brownfield References

Agency	Acronym	Website	Phone Number
FEDERAL			
Environmental Protection Agency Region 2	USEPA	www.epa.gov/brownfields	212-637-3283
STATE			
Department of Community Affairs			
– Housing and Finance Mortgage Agency	HFMA	www.njhousing.gov	609-278-7400
– Urban Enterprise Zone Program	UEZ	www.state.nj.us/dca/affiliates/uez/	
Department of Environmental Protection			
– Site Remediation Program, Brownfields	SRP	www.state.nj.us/dep/srp/brownfields	609-984-1790
– Office of Brownfields Reuse	OBR	www.state.nj.us/dep/srp/brownfields/obr	609-984-1790
– Hazardous Discharge Site Remediation Loan and Grant Program		www.state.nj.us/dep/srp/finance/hdsrf	609-984-1790
– NJ Environmental Infrastructure Trust	NJEIT	www.njeit.org	609-219-8600
– NJ Green Acres Program		www.state.nj.us/dep/greenacres	609-984-0500
– Office of Community Relations	OCR	www.state.nj.us/dep/srp/community	609-984-3081
– Public Records Access Program	OPRA	www.state.nj.us/dep/opra	
Interactive Brownfields Map		www.state.nj.us/dep/srp/publications/brownfields/2001/04_imap.htm	
NJ GeoWeb Online Map Resources		www.state.nj.us/dep/gis/geoweb splash.htm	
Department of State / Office for Planning Advocacy			
Brownfields Program		www.state.nj.us/state/planning/brownfields.html	609-777-3474
- InterAgency Working Group	IAWG	www.state.nj.us/state/planning/docs/2014-IAWG-1-page.pdf	
– NJ Brownfields Task Force <i>and</i>	BFTF	www.state.nj.us/state/planning/brownfields-task-force.html	
– Brownfields Redevelopment Interagency Team	BRIT	www.state.nj.us/state/planning/brownfields-task-force.html	
– NJ Business Action Center	BAC	www.state.nj.us/state/bac	866-534-7789
NJ Redevelopment Resource Kit		www.state.nj.us/state/planning/publications/171-brownfields-resource-kit.pdf	
NJ Brownfields Redevelopment and Inventory Assistance		www.state.nj.us/state/planning/publications/173-brownfields-assist.pdf	

Appendix C

Government and Nonprofit Organization Contact Information and Brownfield References

Continued

Agency	Acronym	Website	Phone Number
NON-PROFIT ORGANIZATIONS			
Association of New Jersey Environmental Commissions	ANJEC	www.anjec.org	973-539-7547
Center for Creative Land Recycling	CCLR	www.cclr.org	415-398-1080
NJ Highlands Coalition		www.njhighlandscoalition.org	973-588-7190
Housing and Community Development Network of New Jersey	HCDNNJ	www.hcdnnj.org	609-393-3752
Ironbound Community Corporation	ICC	www.ironboundcc.org	973-589-3353
Isles, Inc.		www.isles.org	609-341-4700
La Casa de Don Pedro		www.lacasanwk.org	973-482-8312
New Community Corporation/Newark	NCC	www.newcommunity.org	973-623-2800
New Jersey Conservation Foundation	NJCF	www.njconservation.org	908-234-1225
New Jersey Environmental Federation	NJEF	www.cleanwater.org	732-963-9714
New Jersey Future	NJF	www.njfuture.org	609-393-0008
New Jersey Sierra Club		www.newjersey.sierraclub.org	609-656-7612
New York/New Jersey Baykeeper		www.nynjbaykeeper.org	732-888-9870
Project Freedom		www.projectfreedom.org	609-448-2998
Regional Plan Association NJ Committee	RPA	www.rpa.org	609-228-7080
Work Environment Council of NJ	WEC	www.njwec.org	609-695-7100
RESEARCH INSTITUTES			
National Center for Neighborhood and Brownfields Research		www.eac.rutgers.edu/brownfields	848-932-2714

Appendix D

Financial Programs and Agencies

1. *The New Jersey Hazardous Discharge Site Remediation Fund (HDSRF)*

The HDSRF finances the investigation and cleanup of contaminated sites through grants (for investigation) and low interest loans (for cleanup) to municipalities, businesses and responsible parties who discharge hazardous substances.

The *NJ Economic Development Authority (NJEDA)* administers this program: 609-341-2723, http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=799&menuid=1188&topid=718&levelid=5&midid=1175

2. *The Petroleum Underground Storage Tank Remediation Upgrade and Closure Program*

A hardship fund specifically created to provide loans and grants to business owners, homeowners and municipalities for upgrades, closures and remediation of underground storage tanks.

The *NJ Economic Development Authority (NJEDA)* administers this program: 609-777-4898, http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=799&menuid=1188&topid=718&levelid=5&midid=1175

3. *Redevelopment Funding*

Revenue Allocation District (RAD) Funding is available to municipalities to encourage revenue-generating development projects in RADs as part of a locally approved redevelopment plans. Bond Financing is available to municipalities in formally designated redevelopment areas and other areas. This financing offers long-term, low-interest bonds for infrastructure improvements and other costs including demolition and remediation. *Brownfields Redevelopment Loans* and guarantees are provided for brownfields remediation costs. These low-cost loans are available to all types of communities. Predevelopment funding is also available for site preparation costs (e.g. demolition, removal of materials and debris, and engineering).

The *NJ Economic Development Authority (NJEDA)* administers the Revenue Allocation District funding: 609-341-2723, <http://www.njeda.com>

NJ Redevelopment Authority (NJRA) offers financing and assistance for redevelopment in urban municipalities, 609-292-3739, www.njra.us

Housing and Mortgage Finance Agency (HMFA) offers financing and assistance for affordable and market-rate rental, homeownership, mixed-use and special needs housing, 609-278-7626, www.nj-hmfa.com.

NJ Environmental Infrastructure Financing Program (NJEIT), offers lower cost 25/75 Trust/Fund financing to projects within the Urban Centers and the Urban Complex, for all land purchases and all combined sewer overflow projects, 609-219-8600, www.njeit.org.

4. *Small Business Liability Relief and Brownfields Revitalization*

The federal 2002 Small Business Liability Relief and Brownfields Revitalization Act provides additional funds for brownfields redevelopment, and also expands the definition of what is considered a brownfield, so communities may now also focus on sites contaminated with petroleum.

USEPA administers this program: 202-566-2777, http://www.epa.gov/brownfields/grant_info/index.htm

5. *Urban Enterprise Zone (UEZ) Program*

The UEZ program provides funds for infrastructure improvements, brownfields planning and remediation, and other projects that support economic growth. This program's goal is to revitalize local, regional and state economies.

The *NJ Department of Community Affairs* administers this program: 609-292-1912 www.state.nj.us/dca/affiliates/uez/

6. *Advice and Guidance*

Brownfields Redevelopment Interagency Team (BRIT) can provide interested parties with guidance as to available loans, grants, or property tax credits as well as a copy of the *NJ Brownfields Redevelopment Resource Kit*, www.state.nj.us/state/planning/publications/171-brownfields-resource-kit.pdf, 866-534-7789.

New Jersey Economic Development Authority advises businesses on the financial incentives available for brownfields redevelopment, www.njeda.com, 609-858-6700. ■



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