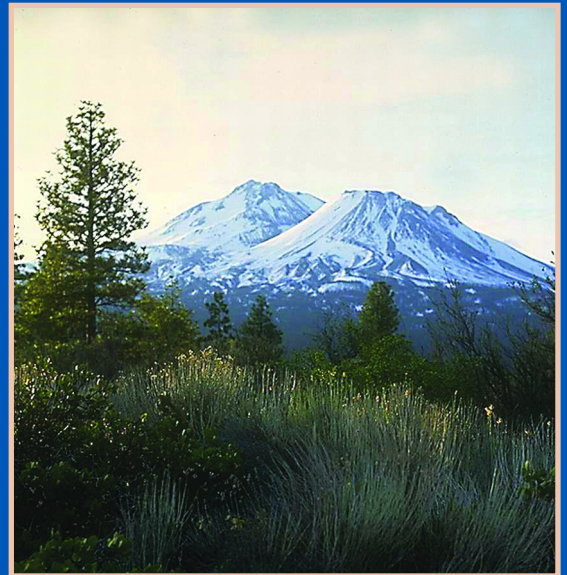


# TOOLBOX

## for Cleanup and Redevelopment of Contaminated Sites in Small Cities and Rural Communities

State Response and Brownfields  
Program Operations Task Force

March 2007



Association of State and Territorial

**ASTSWMO**

Solid Waste Management Officials

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## Introduction

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The Contaminated Sites Cleanup and Redevelopment Toolbox was developed by the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) State Response and Brownfields Program Operations Task Force.

## Purpose of this Toolbox

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This Toolbox can be used for a range of properties that have redevelopment potential but either have or are suspected of having environmental contamination (i.e., sites contaminated with solid or hazardous waste). Such properties may be addressed by a range of state response programs, including voluntary cleanup, Brownfields, landfill cleanup programs, underground storage tank programs, etc. Thus, the generic term “contaminated sites” or “properties” is used throughout the document. The purpose of this Toolbox is to explain the process of cleanup and redevelopment of contaminated sites in straightforward terms, and provide rural and smaller city governments/entities/communities with a systematic, start-to-finish, guide to cleanup and redevelopment. The Toolbox identifies five steps in the renewal process. The Toolbox provides a brief summary of each step, answers a series of Frequently Asked Questions (FAQs), and lists and summarizes available state and federal tools and incentives local governments may want to utilize in pursuing redevelopment of a contaminated site in their community. A list of questions is presented at the end of Steps 1 through 3; based on the answers, the reader/user is directed to the appropriate next step for that project.

## How to Use this Document

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This Toolbox provides a framework for successful project implementation. Prior to redeveloping a contaminated site, familiarize yourself with this Toolbox and refer to it throughout the various stages of your project. The Toolbox is comprised of five Steps, where each corresponds to a step in the renewal process. Keep in mind, the contaminated site renewal process can sometimes be an iterative process and you may have to revisit certain steps. The following is a guide to navigating the Toolbox for effective completion of your project.

1. For a general overview of the process for assessment, cleanup, and redevelopment, review the narrative summary provided at the beginning of each section.
2. Next, be aware that each project is different; treat this Toolbox as a guide that must be adapted to meet the needs of your specific project, not as a one-size-fits-all approach. For example, if you are working to address a specific property where an Environmental Assessment has already been completed, you will begin the process at Step 3.
3. Follow this approach until environmental issues are resolved or until you reach Step 5, Redevelopment of your Site. This section provides information that can assist you in addressing the issues inherent in marketing and developing a formerly contaminated property (or one where contamination has been properly and safely addressed but has not been completely eliminated.)

## The Five Step Contaminated Property Renewal Process

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The Toolbox breaks the renewal process into five (5) steps:

**Step 1:** Site Identification and project planning

**Step 2:** How to determine if you have contamination on your site

**Step 3:** Cleaning up your site

**Step 4:** How your state's program can help when a site is contaminated

**Step 5:** The End of the Line – Redevelopment of your property!

The Toolbox summarizes some of the federal tools available nationwide. Each step also contains a reference to “state-specific tools and information”, which is provided in Appendix B of this document. Each state was encouraged to add their own information in Appendix B, and this may include programs, incentives, guidance, funding and other state-specific tools available to local governments. Your state may also provide information on how a local government can best access the available federal tools and incentives; this can vary from state to state. Each state is different, so it is very important to review your state-specific information and work with your state program staff throughout the contaminated property redevelopment process.

Finally, the Toolbox contains a list of useful documents and resources that provide you with additional information you can use to better understand the issues and terminology often encountered during the assessment, cleanup, and redevelopment process. Your state program is also an excellent resource

### Step 1: Site Identification and Project Planning

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This section provides guidance on how to identify contaminated properties with redevelopment potential in your community, how to develop a revitalization plan to address those properties, and how to initiate project planning.

Experience has shown that successful contaminated site redevelopment comes in many forms and that each community has its own unique opportunities and revitalization goals. Regardless of a community's size, history, and number of contaminated properties, planning ahead is extremely important.



Whether your community's goal is to develop a comprehensive revitalization plan for multiple properties, or if you plan to redevelop just one contaminated property, successful project planning must consider the resources available for environmental investigation and cleanup of the property(ies), and determine how the property(ies) will be redeveloped and/or marketed for redevelopment. Considering these issues early on can make a big difference in successfully meeting your community's revitalization goals. The FAQs, recommended activities, and available tools below provide information to help you understand the process and guide your community through the site identification and project planning phase.

## FAQs

### **What are the types of properties for which this Toolbox may be used?**

The Toolbox is meant to address abandoned or underutilized properties, including but not limited to industrial and commercial facilities, where redevelopment or expansion may be complicated by possible environmental contamination (real or perceived). An example of a category of such sites are Brownfields, which are officially defined by the federal government in The Small Business Liability Relief and Brownfields Revitalization Act of January 11, 2002, ("Federal Brownfields Law") as any "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." Specific examples of sites which could qualify include: abandoned gas stations, old factory and mill complexes, foundries, junkyards, mine-scarred lands, old solid waste landfills, and other under-utilized or abandoned properties.

### **Why is redevelopment of these properties important?**

These properties are often abandoned, with owners no longer maintaining the property or paying taxes. Abandoned properties can quickly become eyesores, and may attract vandalism and illegal dumping, which degrade the environment, depress our communities, and potentially put our health at risk. Productively reusing such properties reduces urban sprawl, increases the tax base, cleans up the environment, encourages urban revitalization and creates jobs for the community and surrounding communities. Redeveloping these properties links economic vitality with environmental protection.

### **What would be the advantage of having a revitalization plan for contaminated properties in my community?**

Establishing a community-led revitalization plan aids in removing environmental hazards from communities, eliminates the need to develop pristine open space and farmland, revitalizes communities by creating jobs, and returns property to productive use and to local tax rolls. An additional advantage of a community-based approach is that community members have a direct role in determining how their impacted properties can be cleaned up and redeveloped to best facilitate the community's future development plans.

## Activities and Available Tools

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If you have identified contaminated properties, or properties that are perceived to be contaminated in your community that you would like to do something about, you've taken the first step. So what are the next steps? This depends on what your community's plans or desires are for future development in your city, town or village. Some questions you should consider are:

- Does your community want to clean up these properties and market them to potential commercial, industrial or residential buyers or developers?
- Does your community want to retain some of these properties for its own use, perhaps for municipal or open-space purposes, or for affordable housing?
- Has your community been approached by potential buyers or developers who have been subsequently "turned off" because the property is contaminated or perceived as contaminated?
- Does your community have (or want to develop) a comprehensive plan for revitalizing its abandoned or underutilized properties that are contaminated or perceived that way?

## Forming a Property Revitalization Team

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If the answer to any or all of the above questions is yes, your community may want to consider forming a property revitalization team. Such a team is typically a mix of public and private parties from your community who have an interest in fostering well-planned, successful cleanup and redevelopment. The team can be large or small or as formal or informal as the community needs. It can be tailored to the size and complexity of one specific project, or it can guide an entire revitalization vision. It can be made up of elected officials, planners, attorneys, environmental professionals, economic development officials, members of environmental and citizen interest groups and the like. The team can bring valuable perspectives from each member's area of expertise to help develop a mission and determine long-term and short-term goals based on the community's revitalization needs and desires.

In addition to forming a team, it can be quite helpful to contact other local communities, private entities or professionals with previous experience addressing these properties. State and federal agencies have programs for assessment and cleanup of contaminated sites. They may have lists of local government and private contacts who are well-versed in the issues encountered at these sites and would be happy to share their knowledge. Contact information for your state's response program can be found in Appendix B of this document.



## Determining the Intended Use for the Property

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The intended use of a property plays an important role in the revitalization process. If contamination is identified, the nature and extent of the contamination will have to be assessed. How that contamination is cleaned up, however, may be affected by the property's intended future use. For example, if the redevelopment plan calls for the construction of a light industrial facility, it may be appropriate to apply industrial investigation and cleanup standards that are less stringent than those that would be applicable to a property that is to be redeveloped for residential use. Therefore, it is important to consider potential redevelopment plans at the outset of any project.

If the intended use is not known at the beginning of the project, the community representatives or property revitalization team should make every attempt to identify the general type of desired development, whether industrial, commercial, residential, or a mixed-use development. In the absence of that information, the most conservative cleanup assumptions would likely have to be made at every stage of the project. While this approach preserves the greatest number of options for development, this may significantly increase the time and expense of the project. These factors are discussed in greater detail in Step 3.

## Financial Assistance for Community-Lead Assessment and Cleanup Activities

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Forming a team and determining the best use of your community's contaminated properties are important first steps but ones that do require resources. U.S. EPA offers Brownfields grants on a periodic basis (usually once a year, with grant application rounds normally beginning in the fall) to assist communities with various activities related to contaminated property revitalization. One of the grants U.S. EPA makes available to communities is the Brownfields Assessment Grant. This grant provides funding for property characterizations and assessments and activities to conduct planning and community involvement related to qualifying sites. This grant can also provide funding for conducting contaminated property inventories (see section below). In addition to funding for assessments, grants are awarded for cleanup and to establish revolving loan funds.

More information about the Brownfields Assessment Grant can be found on U.S. EPA's Brownfields Web page at: [www.epa.gov/brownfields/assessment\\_grants.htm](http://www.epa.gov/brownfields/assessment_grants.htm).

Additional financial resources, to include grants from the U.S. Department of Housing and Urban Development (HUD) and other federal agencies, are listed in Appendix A of this document. Appendix A also includes brief descriptions of Tax-Increment Financing and other potential resources.



## Developing an Inventory of Contaminated Properties

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Historical industrial or commercial property use often resulted in environmental contamination. If your community had an industrial past and now has abandoned or underutilized industrial or commercial properties, an inventory can help you identify the number and location of such properties. Then you can begin to consider what can be done for these properties to benefit the economic health and vibrancy of the community.



Communities are often in a good position to create such inventories. Local units of government have access to historical documents that can help determine which properties should be in such an inventory, and can conduct title searches to determine ownership. The local government and its property revitalization team will also be in a good position to know which of these properties would provide the greatest redevelopment benefit to your community. This is a crucial initial step in prioritizing cleanup and redevelopment. Organizations that have local historical expertise such as senior citizen and scouting groups have helped communities successfully conduct such inventories after receiving training from the local property revitalization team or other state or local experts. You may want to enlist the help of a local volunteer service organization to maximize your inventory efforts.

## Planning Resources

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It is important to plan ahead as much as possible. There are many resources available to assist your community in the planning process. See Appendix A for list of planning resources.

For more information on tools and financial resources to assist you with project planning and site identification that are specific to your state, refer to Appendix B of this document.

## Determining Your Next Step

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The following series of questions will help you determine the next step in the redevelopment process:

- Has your community identified a property(ies) where redevelopment is complicated by real or perceived environmental contamination, and the nature and extent of that contamination is not known?  
— *If "yes", go to Step 2 "How to Determine If You have Contamination on Your Site".*
- Has your community identified a property(ies) where contamination exists and the nature and extent of that contamination has been documented?  
— *Go to Step 3 "Cleaning Up Your Site".*
- Has your community identified a property(ies) where contamination exists, documented the nature and extent of contamination, and analyzed the risks posed by that contamination?  
— *Go to Step 4 "How Your State's Program Can Help When a Site Is Contaminated".*

- Has your community evaluated cleanup options for a contaminated property project and selected a remedial action?
  - o Go to Step 5 “The End of the Line – Redevelopment of Your Property!”.

## **Step 2: How to Determine if you have Contamination on Your Site**

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Once you have identified potential contaminated property that your community would like to redevelop, the next step is to determine whether there actually are any environmental conditions present that may affect future use and redevelopment. This will assist you in determining what liability the community may have and possibly the cost it might bear if it chooses to take ownership and begin a cleanup.

Making a determination of whether a property is contaminated or not is accomplished by conducting an environmental site assessment, which includes a review of historical records, an inspection of the site and, quite often, collecting and analyzing soil and groundwater samples.

### **FAQs:**

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#### **What is an environmental site assessment?**

Environmental site assessments are typically conducted in phases, and are used to determine whether a site is contaminated or not. A Phase I environmental assessment is a review of all the records and knowledge associated with the property’s historical record to see if there is the potential for the presence of contamination. If the Phase I indicates there is a potential for contamination, then the assessment of the site proceeds to the next phase. A Phase II involves sampling of the site and will help determine: the extent of contamination; the types and probable sources of contamination; the level of risk to humans and the environment associated with the contamination and whether the contamination needs to be cleaned up.

#### **Why should I do an environmental site assessment?**

As with any large investment, you want to know what kind of additional costs you will incur before you finalize the purchase. In the case of a Brownfield site, you want to find out if the site is contaminated and, if so, how much it is likely to cost to clean it up before you buy it. An environmental site assessment can accomplish that task and, if it meets the requirements of the All Appropriate Inquiry rules (see the AAI FAQ below), limit your liability under the federal Superfund law. In addition, your state may also provide for a similar release of liability under state law.

#### **Who performs the environmental site assessment?**

Environmental site assessments are typically conducted by environmental consultants trained and experienced in the areas of environmental investigation and cleanup. Federal regulations require that AAI investigations be carried out by qualified environmental professionals who meet certain minimum requirements. Your state may have suggestions regarding when or if it is necessary to hire an environmental consultant.

For more information on hiring an environmental consultant, access the U.S. EPA Web site at: [http://www.epa.gov/brownfields/aai/HiringEP\\_Addendum\\_factsheet.pdf](http://www.epa.gov/brownfields/aai/HiringEP_Addendum_factsheet.pdf).

### **Who pays for the assessment?**

Assessment costs are typically paid by the prospective purchaser, although under certain circumstances U.S. EPA or the state may be able to conduct these assessments at no cost to the municipality under their Targeted Brownfield Assessment program. For more information about this program see Activities and Available Tools below.

### **Can I do an environmental site assessment before I own the property?**

Yes, if you have permission and access rights from the owner of the property. Municipalities and developers often make access rights and permission to conduct an environmental assessment part of their pre-purchase agreement with a property owner.

### **What is meant by “all appropriate inquiry” (AAI)?**

All Appropriate Inquiry, or AAI as it is commonly known, is an environmental site assessment that meets the requirements of U.S. EPA’s All Appropriate Inquiry rule (40 CFR 312). Following the requirements of AAI in a pre-purchase environmental site assessment gives a prospective purchaser protection from CERCLA (aka Superfund) liability for those environmental issues that are identified by the AAI assessment.

Prospective property owners who were never involved in any practices that might have contaminated the property (aka innocent landowners) as well as owners of contiguous properties are eligible for protection from CERCLA, if AAI is conducted prior to purchasing a property. In addition, to maintain protection from CERCLA liability, property owners must comply with certain “continuing obligations” provided in the statute.

For more information on the AAI rule, access the U.S. EPA Web site at <http://www.epa.gov/swerosps/bf/regneg.htm>.

### **Does my state require cleanup of this property?**

Assessment and cleanup of properties must be done in conformance with the requirements of both U.S. EPA and those of your own state. Please see Section 4 of this Toolbox, and check with your state program.

### **Will an environmental assessment performed several years ago meet the new AAI requirements?**

No. Information from older Phase I reports may be used as a resource, but the 2002 Federal Brownfields Act requires that a Phase I assessment used to meet the requirements of AAI must be completed within a year prior to taking ownership of the property. This is to ensure that the current environmental status of the property is known at the time the property is transferred. In addition, certain aspects of the AAI assessment must be completed within 180 days prior to the property transfer (i.e., the on-site investigation, the records search, the interviews, and the search for environmental cleanup liens). This protects the buyer from inadvertently accepting liability for contamination that may have occurred between the time the initial assessment was conducted and when the property actually transfers.

## Activities and Available Tools

### Phase I Environmental Assessments

A Phase I environmental site assessment requires that an appropriately qualified environmental professional review existing records concerning the site, research the operational history of the site, and conduct a site visit and interviews to determine if the potential exists for contamination at the site.

Phase I site assessments are used to identify existing or past signs of potential contamination at a property.

Contamination can consist of hazardous substances and petroleum products as well as asbestos, lead-based paints, mold, and radon.

If the Phase I assessment does not indicate a significant potential for environmental risk due to contamination at the site, then further investigation or cleanup may not be needed. You should consult your state program for verification.



If the assessment is inconclusive or identifies potential contamination that poses environmental risk, further environmental assessment may be needed. Soil, sediment, soil vapor, and/or groundwater sampling may be required to determine whether the property is contaminated and if it needs to be cleaned up before it can be redeveloped. Sampling for contamination and determining the need for cleanup at the property is conducted under the Phase II assessment.

### Phase II Assessments: Sampling and Risk Assessment

A Phase II environmental site assessment is a detailed evaluation of environmental conditions at a property. This evaluation relies on the collection and analysis of soil, sediment, soil vapor and groundwater samples, and other measurements taken at the site to confirm and quantify the presence of environmental contamination at the property. Before and after conducting the sampling activity, it may be appropriate to involve your state program to comment on the relevance and adequacy of the effort.

If contamination is confirmed and the levels of contaminants are known, an assessment of risks to human health and the environment may be conducted to determine how people and/or the environment could be affected. Once a risk assessment has been conducted or a comparison is made to state or federal cleanup standards, a decision can be made regarding whether or not the property poses an unacceptable environmental or health risk. If unacceptable risk is determined to exist at the site, a plan can be developed to clean up the property and reduce risks to humans and the environment

The Phase II site assessment is designed to evaluate the degree of contamination and health or environmental risk posed by exposure to such contamination. It may not provide sufficient information to estimate the exact quantity of wastes to be addressed or the costs of cleanup. Additional work may be needed which is discussed in Step 3 of this document, "Cleaning up your Site"

## U.S. EPA Assessment Grants

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Grants of up to \$200,000 are available to municipalities and quasi-governmental entities that bear no responsibility for causing the contamination at a site. These competitive grants are available on an annual basis for planning and assessment of Brownfields sites contaminated with petroleum or hazardous substances.

See [www.epa.gov/brownfields/assessment\\_grants.htm](http://www.epa.gov/brownfields/assessment_grants.htm) for more information.

## Targeted Brownfields Assessments

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U.S. EPA regional offices or your state program may be able to assess Brownfields sites under a program called *Targeted Brownfields Assessment*. At the request of a municipality or non-profit the U.S. EPA can perform an assessment and assist in the planning process for redevelopment of Brownfields sites. These assessments are done at no cost to the requesting community at sites where there is a clear public benefit, and the community did not cause the contamination. See <http://www.epa.gov/brownfields/tba.htm> for more information or check with your state program.

For more information on tools and financial resources to assist you with project planning and site identification that are specific to your state, refer to Appendix A of this document.

## Determining Your Next Step

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The following questions were developed to help determine your next step in the contaminated property redevelopment process:

- Did my environmental site assessment reveal any potential contamination or other recognized environmental conditions on this property?
  - *If no, go to Step 5, “The End of the Line – Redevelopment of Your Property!”.*
  - *If yes, and you want to clean up the property before marketing it for redevelopment, go to Step 3, “Cleaning Up Your Site”.*
  - *If yes, but you do not want to clean up the property prior to marketing it for redevelopment, go to Step 5, “The End of the Line – Redevelopment of Your Property!”.*
  
- Does the contamination pose a risk to human health or the environment?
  - *If yes, then cleanup will likely be necessary, so proceed to Step 3 “Cleaning Up Your Site”.*
  - *If no, and it does not affect the future use of the property, then proceed to Step 5, “The End of the Line – Redevelopment of Your Property!”.*
  
- Does the contamination require cleanup or other corrective measures in order to protect human health or the environment, or can the contamination be addressed through a deed notice or other similar mechanism?
  - *Go to Step 3, “Cleaning Up Your Site”.*
  
- What financial or human resources are available to address this project?
  - *Go to Step 4, “How Your State’s Program Can Help When a Site Is Contaminated”.*

## Step 3: Cleaning Up Your Site

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The results of your Phase II assessment may indicate that contamination on the property exceeds state and/or federal screening or cleanup standards. Cleanup may be necessary to either prevent exposure by future users of the site to contamination or to stop a release of contamination into the environment. This Step is intended to provide general information on cleanup and its role in the Brownfields redevelopment process.

### FAQs:

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#### How do you know when a property needs to be cleaned up?

If, after conducting environmental assessments as described in Step 2, your sampling results exceed your state's cleanup levels or the risk assessment indicates that a potential risk to human health or the environment exists, it is likely that some form of cleanup is necessary.

#### Who do I need to consult to get help with cleaning up the site?

If you haven't done so already, you should hire an environmental consultant to work with you to develop and implement a plan to address the contamination at your site. Additionally, it may be necessary to hire an environmental attorney who is familiar with state and federal laws to assist you in dealing with the legal issues relative to the cleanup process. Finally, you should also contact your state environmental agency and ensure that any cleanup work you are planning to conduct will fulfill state requirements. See Step 4 for more information regarding your state's cleanup requirements.

#### How much will the cleanup cost?

The more information you have about the types and amount of contamination on your property, the easier it will be to estimate the cost to clean it up. In addition, determining future intended use for the property may allow you to tailor the cleanup and reduce the costs.

Incorporating cleanup activities into the general construction process or using innovative architectural designs can help reduce costs. For example, it may be possible to reduce the amount of contaminated soil needing to be excavated and disposed of by constructing buildings over less-contaminated areas, and/or paving areas of higher contamination to reduce exposure.

In addition, cost-effective remediation techniques designed to address contamination under buildings and in groundwater have been developed, and may be appropriate for your project. You may want to contact your state's environmental agency as they may have web sites and contact information that can provide you with more information about these remediation techniques.

### What types of cleanup might be necessary at Brownfields sites?

Soil, sediment, groundwater and indoor air may need to be cleaned up at a contaminated site. Techniques have been developed to address contamination in each of these media. The type of cleanup selected is based on situation-specific considerations such as type of contamination, amount of contamination, depth to groundwater, and extent of risk to human health or the environment. Additional cleanup might be necessary during the demolition phase to address issues such as asbestos or lead-based paint.

### What are institutional controls?

In cases where the cleanup does not remove or address all of the contamination at the property to the most stringent of standards (e.g., for residential or unrestricted use), Institutional Controls (ICs) may be required as part of the cleanup. ICs are legally enforceable restrictions, conditions, or controls that limit or prevent the use of the property, ground water, or surface water so that future exposure to contamination can be prevented or minimized.

ICs are intended to reside in the property chain of title records and to be discovered when property ownership changes. By making future owners and others aware of the location of contamination, a less stringent cleanup option may be implemented that is just as protective of humans and the environment as a more “complete” cleanup. Some examples of ICs include easements, activity and use limitations, restrictive covenants, well drilling prohibitions, deed restrictions, zoning restrictions, and special building permit requirements.

Each state’s real estate laws vary. In some states, the owner is the only person can only place such instruments in the chain of title. Check your state’s laws for specifics for your situation.

## Activities and Available Tools

### Types of Cleanups for Brownfields Sites

The type of cleanup required at a site depends on a number of factors. These factors include location, type and amount of contaminant(s) present, how widespread and deep the contamination is and the intended future use.



The most common types of cleanups include removal or treatment of contaminated soil, capping and/or covering the contaminated area, and cleaning up groundwater. However, additional methods for mitigating risks at Brownfields sites include the use of institutional controls (see IC FAQ above) and engineering controls.

U.S. EPA has published a compendium on cleanup options that can be found at: <http://www.epa.gov/tio/download/misc/roadmap3edition.pdf>.

Engineering controls are constructed parts of a cleanup that act to cover (i.e., “cap”) or limit exposure to residual contamination at the property. Engineering controls include soil, asphalt or concrete cover systems over residual contamination and the use of fences. In some cases, contamination at depth can be “capped” by a newly constructed building or roadway.

Because the amount of cleanup needed can be highly dependent on future use, it is very important to thoroughly assess the property in the early planning stages of your project. The assessment information may allow you to design appropriate but cost effective cleanup options that can be incorporated into the development process.

## Importance of determining future use of the property

The redevelopment of a contaminated property is essentially a real estate transaction, and any real estate transaction is affected by location, location, location. A key question that must be answered for every property redevelopment project is, “Will a return on my investment be realized?”. To determine that, you need to know the cost of cleanup.

What constitutes a successful and protective cleanup has evolved over the past several decades from an expensive “remove it all” approach, regardless of how low the actual



risks to humans and the environment might be, to a more measured, risk-based approach where low levels of contamination can be left on site if properly controlled. The risk-based approach recognizes that any cleanup must be protective of human health and the environment, but cleanup need only go as far as necessary to make the site safe for its intended use. For example, cleaning up a site to single family residential use

exposure levels is unnecessary if the property is to be used as a warehouse or convenience store. The reverse is also true. You wouldn’t want a less stringent cleanup that is appropriate for an industrial use to occur where homes were to be built.

So, the intended future use of a site can determine the extent of cleanup that will be required. It is just as true that the extent of cleanup can determine the future use of a site. Sometimes the intended use of a site is known from the beginning and the cleanup is tailored for that use. In other cases, available funding limits the extent of cleanup, which may then dictate more limited options for future use. Knowing the intended future use can significantly affect the cleanup both in scope and cost.

## State Acknowledgement of Completion of Cleanup

One of the benefits of conducting a cleanup under a state’s program is that in return for completing cleanup to the satisfaction of the state or its designee (some states rely on environmental professionals for oversight and approval of cleanup work), you receive a release from liability or state approval when you complete the cleanup. Many states



provide written acknowledgement of this in the form of a No Further Action letter, Certificate of Completion or Covenant Not to Sue. These may be used to demonstrate to prospective purchasers, future users of the site, lenders, the local community, and other interested parties that contamination issues have been resolved and the site is safe for reuse. For more information about whether or how your state provides acknowledgement of completion of a Brownfields cleanup, refer to Step 4.

## Loans and Grants available for Funding Cleanup

One of the biggest barriers to cleanup of contaminated properties is financial resources. U.S. EPA Brownfields cleanup grants are an excellent source of funding for cleanup of qualifying properties (see Step 1, “Site Identification and Project Planning”). Since the grants are highly competitive and applications are only accepted once a year, your project should have some flexibility built in for these constraints.

More information about the Brownfields Cleanup Grant can be found on U.S. EPA’s Brownfields Web page at: [http://www.epa.gov/brownfields/cleanup\\_grants.htm](http://www.epa.gov/brownfields/cleanup_grants.htm). Also see Appendix A for a list of other federal or regional loan and grant programs.

Another potential source of cleanup funding may be grants or loans from your state environmental or economic development agencies. Many states have Brownfields revolving loan funds. These revolving loan funds generally allow parties to borrow money to fund assessment and cleanup of Brownfields at low interest rates. You should contact your state agency to see if such funding is available.

For more information on tools and financial resources to assist you with project planning and site identification, refer to Appendix A of this document.

## Determining Your Next Step

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- Have you completed cleanup prior to redevelopment?  
— Go to Step 5, “The End of the Line – Redevelopment of Your Property!” for assistance in marketing or developing your site.
- Have you identified but not addressed all environmental concerns at the property, and do not intend to clean up the property prior to selling it  
— Go to Step 5, “The End of the Line – Redevelopment of Your Property!” for assistance in marketing or developing your site.
- Do your cleanup activities require institutional controls and have they been appropriately filed and recorded according to applicable statute and regulation?  
— Go to Step 4, and refer to Appendix B which provides contacts and information specific to the requirements of your state.
- If you know who the purchaser of the property will be, have you conveyed the content and responsibilities of the institutional controls to them?  
— Go to Step 5, “The End of the Line – Redevelopment of Your Property!” for assistance in marketing or developing your site.
- If your site requires long-term maintenance, have you made plans to fund and carry out those obligations or made arrangements for others to do it on your behalf?  
— Go to Step 4, and refer to Appendix B which provides contacts and information specific to the requirements of your state.

## Step 4: How your State's Program can help when a site is Contaminated

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Assessment and cleanup of properties must be done in conformance with the requirements of both U.S. EPA and those of your own state. This section explains how to locate information about your state's cleanup program.

Most states have their own cleanup programs, separate and distinct from U.S. EPA's Superfund cleanup program. Eligibility, technical requirements, timeframe, fee structure, liability relief, and level of oversight vary state-by-state.



There are many advantages to conducting a cleanup under a state program. Under many state programs, site closeout letters (using a variety of titles) are issued. These can be used to demonstrate to prospective purchasers and future users of the site that contamination issues have been resolved, and that neither you nor they will be held liable for past contamination at the site. Cleanups conducted under state programs may provide the liability relief needed to access financing. And in addition to receiving protection under applicable state laws, successful cleanup under your state's cleanup program may also provide relief from U.S. EPA requirements for additional response actions at the property.

Most states have voluntary cleanup programs, which encourage property owners to conduct cleanups on their properties that might not otherwise take place. In those states, under certain specific circumstances, the state's laws do not mandate cleanup. Some state cleanup programs are not considered voluntary, because the property owner is required by law to clean up the property.

Basic information about each state's cleanup program can be found in U.S. EPA's February 2005 publication, "State Brownfields and Voluntary Response Programs: An Update from the States" (EPA-560-R-05-001). For a copy of this report, visit EPA's Web site at: [http://www.epa.gov/brownfields/pubs/st\\_res\\_prog\\_report.htm](http://www.epa.gov/brownfields/pubs/st_res_prog_report.htm). For additional information specific to your state, please see Appendix B.

## Step 5: The End of the Line – Redevelopment of Your Property

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By working through Steps 1 through 4, you have quantified the environmental concerns at your site. You have either addressed those environmental concerns through cleanup or institutional controls, or you have documented them for a future developer to address as part of development. Assessment is complete; actions were taken, or plans were developed for resolving unacceptable environmental risks. The property is ready for redevelopment.

Now that you have resolved the initial challenges associated with the environmental aspects of the site, you can turn your attention to the final steps. You may be marketing your now-clean property, trying to ensure a good return on your investment, and doing your best to attract the right developer. You will be facing the challenges inherent in any

development project, such as providing appropriate infrastructure, but you also need to convince future buyers and occupants that the site is safe for their use.

You may be redeveloping the property yourself instead of seeking to sell to a developer. In this case, return on investment is not necessarily a primary driver, but you will still need to address infrastructure. You will also need to convince future occupants or users that the site is safe for their reuse.

On the other hand, you may have decided not to clean up the property yourself, but instead to market it for simultaneous cleanup and redevelopment. This is most likely to be successful when contamination at the property has been quantified and final cleanup costs can be determined with certainty.

### This section:

- Provides information on federal and state financial and technical resources that may be available to help with planning and financing redevelopment
- Provides advice on managing the issues inherent in developing a property with contamination
- Details the activities involved in marketing a Brownfields site.

Depending on your plans for redeveloping the property, a variety of federal and regional resources may be available to you. With answers in mind to the questions below, consider the FAQs listed below and the resources described in Appendix A.

- Do you plan to redevelop the site, or to sell/market the site once clean up has been completed, and allow the buyer to redevelop the site?
- Will a public or private entity redevelop the site?
- Is the intended use a public or private use?
- Did you start this entire process with a planned, known reuse for the site, or are you still developing your reuse plans?
- Is your site in the heart of a bustling urban center or in a rural setting?
- What infrastructure exists at the site?
- Will the reuse be residential, commercial, industrial or open space?

Now select the tools that appear most applicable, and work with your local and state economic development specialists to move from planning into redevelopment.



# FAQs:

## **If my property has a deed restriction/institutional control/environmental covenant incorporated into the environmental risk management plan, how will this impact the marketing and redevelopment of the site?**

If your site is safe for reuse but has a deed restriction, developers and occupants will need to be made aware that in certain areas some uses are either prohibited (i.e., growing vegetables is not permitted) or require special consideration (i.e. excavation below 6 feet requires a soil management plan). Developers will need this information to formulate the best plan for reuse of the property. Potential owners or occupants need this information so that they can safely use the property and so they can fulfill any ongoing obligations associated with the deed restriction. These obligations are site and state-specific and may include periodic review and reporting of site conditions, operation of a remediation system, or payment of an annual fee. You should check with your state cleanup program to determine whether any such ongoing obligations apply to your site.

## **What information generated during assessment and cleanup work will developers, lenders, and potential occupants request during the development stage, and how should the information be presented?**

At a minimum, most developers, lenders and potential occupants will want to be assured that the site has been appropriately cleaned up and closed out of the state and/or federal cleanup programs. They may also be interested in reviewing the closeout report and having a copy of the site closure letter received from the state or its designees. Other documents of interest may include the AAI report, assessment reports, and documentation of remediation activities. Most state environmental agencies retain copies of these documents in their files for the public to review. You may also want to set up an information repository in a local library to facilitate review.

## **What role, if any, will local, state or federal environmental staff have during the redevelopment phase?**

You should ask this question as you access specific resources to assist you with redevelopment. The answer is highly dependent on site specifics, state law, and the type of federal or local resources that have been accessed to assist in redevelopment. You should also check with your state's cleanup program to determine whether redevelopment of the property may trigger any further state involvement.

### How should I market this property?

There are many tools available that can allow you to market your cleaned up Brownfields property to the right audience at little or no cost. One example of an effective marketing tool is a State or local property inventory.

Many states have developed extensive, often computerized, inventories of properties. Some, such as Michigan's Web based inventory (see <http://www.misitenet.org/>), have been created specifically to help market the property to prospective developers. Adding your property to these inventories can normally be done at no cost to you and quickly puts your property "out on the market". Check with your state regarding existing state or local inventories.

## Activities and Available Tools

### Tip for Success No. 1 – Establish and maintain a well-rounded contaminated property Revitalization Team

If your Team does not already include local, state or federal economic development agency staff, look to the resources described in Appendix A and Appendix B, and contact the economic development agencies best suited to help with your project.

### Tip for Success No. 2 – Establish clear goals

Work with your Team to develop appropriate locally supported redevelopment goals for your site.

### Tip for Success No. 3 – Identify available tools

Use your redevelopment goals/plan to identify and utilize appropriate tools throughout redevelopment.

### Tip for Success No. 4 – Work to make your site "shovel ready"

Based on the redevelopment goals for the site, in partnership with the economic development staff, identify and utilize the tools that will make your site 'shovel-ready' for development. A shovel-ready site is one where as many regulatory hoops as possible have been cleared in advance of redevelopment. This is a critical step if you plan to market the property for sale prior to redevelopment because you will clear regulatory hurdles for the purchasing developer.

### Tip for Success No. 5 – Market your site

Market your redevelopment project. Local and state economic development staff can be particularly well-versed in strategies and available avenues for marketing. Coordinating with these representatives will help assure success.



## APPENDIX A

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### Resources

Please note that the resources referenced below are often implemented at the regional, state and local levels, so it is important to include regional, state and local economic development specialists in your Revitalization Team.

#### **U. S. Environmental Protection Agency Brownfields Program (U.S. EPA)**

<http://www.epa.gov/brownfields/>

U.S. EPA provides grants to fund assessments and cleanups of Brownfield sites. Grants are also made to capitalize revolving loan funds to clean up Brownfield sites or fund job training programs.

**THINK ABOUT.....**using assessment grants to identify and prioritize Brownfield sites for redevelopment or quantifying the degree of cleanup needed to get the site “business ready”. Cleanup grants often need to be pooled with other cleanup funds unless the cleanup is minor. Non-profits such as urban renewal authorities are eligible recipients of cleanup grants.

#### **National Association of Development Organizations (NADO)**

<http://www.nado.org/rf/innocenters/brown.php>

Since 2001, NADO is dedicated to assisting regional development organizations across the country. Through their Research Foundation they have sought to raise awareness and examine issues related to brownfields revitalization and redevelopment in small metropolitan and rural America. They have released a series of documents specifically addressing reclaiming brownfields properties in rural America all of which are available on their website. Their resource guide is highly recommended reading for brownfields stakeholders and can be found at <http://www.nado.org/pubs/rguide04.pdf>.

**THINK ABOUT...**using NADO to identify potential resources specifically targeted to smaller municipalities and rural communities.

#### **International City/County Management Association (ICMA)**

<http://www.icma.org/main/topic.asp?tpid=19&hsid=10>

Since 1914, ICMA has offered a wide range of services to its members and the local government community. The organization is a recognized publisher of information resources ranging from textbooks and survey data to topical newsletters and e-publications. ICMA provides publications, data, information, technical assistance, and training and professional development to thousands of city, town, and county experts and other individuals on a variety of issues including redevelopment of contaminated properties.

**THINK ABOUT...**using ICMA resource documents to gain additional knowledge on addressing and redeveloping contaminated properties.

#### **National Association of Local Government Environmental Professionals (NALGEP)**

<http://www.nalgep.org/issues/brownfields/>

NALGEP represents local government personnel responsible for ensuring environmental compliance and developing and implementing environmental policies and programs. Their Brownfields Community Network frequently sponsors webcasts aimed at empowering localities to revitalize their communities through the exchange of strategies, tools, and best practices for brownfields cleanup and reuse.

**THINK ABOUT...**using NALGEP resources as a forum for exchanging lessons learned and expanding a communities knowledge base on a variety of redevelopment issues.

## **U.S. Department of Housing and Urban Development (HUD)**

<http://www.hud.gov/offices/cpd/economicdevelopment/programs/rc/resource/brwnflds.cfm>

HUD provides block grants and competitive awards for revitalizing entitlement communities (targeted to state and local governments), offers federally-guaranteed loans for large economic development and revitalization projects, typically in entitlement communities (targeted to state and local governments), provides priority status for certain federal programs and grants for HUD-designated Empowerment Zone or Enterprise Communities (targeted to 80 local governments with low-income or distressed areas), and provides options for meeting safe and affordable housing needs in developed areas.

The six applicable HUD programs listed below provide resources for the renewal of economically distressed areas, including Brownfields sites.

- Community Development Block Grant Program
- Section 108 Loan Guarantee Program
- Brownfield Economic Development Initiative
- HOME Investment Partnership Program
- Empowerment Zones and Enterprise Communities Initiative
- Lead-Based Paint Hazard Control Grant Program

## **Appalachian Regional Commission (ARC)**

<http://www.arc.gov/index.do?nodeId=1765>

ARC provides grants for roads and highways (targeted to state and local governments in the 13 Appalachian states), and offers planning and technical assistance to attract private investment to distressed areas to support new uses (targeted to local governments and development districts/non-profit entities in some cases).

**Contact:** Eric Stockton  
Appalachian Regional Commission  
1666 Connecticut Avenue  
Washington, DC 20009-1068  
(202) 884-7752  
email: [estockton@arc.gov](mailto:estockton@arc.gov)

**THINK ABOUT.....**tapping ARC funding to meet site access road and similar infrastructure support needs of Brownfield projects, including mine scarred lands...or helping cover planning costs at sites being reused.

## **U.S. Department of Agriculture (USDA)**

Forest Service: [www.fs.fed.us](http://www.fs.fed.us)

The Forest Service provides technical assistance for Brownfields projects in selected areas (targeted to EPA grantee, local governments, federal Empowerment Communities and Enterprise Zones) and offers technical and financial assistance for sustainable redevelopment and reuse projects. These are targeted to state and local governments and community-based groups in Atlanta, Seattle, New York, Chicago, San Francisco, Los Angeles, Denver, Las Vegas, East St. Louis, South Florida (four county area), Philadelphia, Boston, and Buffalo.

## **Rural Development Agency (RDA)**

[www.rurdev.usda.gov](http://www.rurdev.usda.gov)

USDA provides grant, loan, and loan guarantee assistance for a variety of business, commercial, and industrial projects in small towns and rural areas, supports the installation and improvement of critical infrastructure needed to support economic development, and helps finance the construction of key public facilities - sewer systems, firehouses, etc - that can support Brownfields revitalization efforts.

**THINK ABOUT...**using USDA/RDA resources to meet various Brownfields needs within the context of small town or rural needs --real estate acquisition, cleanup, demolition, working capital, water and sewer system improvements, supportive community facilities.

## **U.S. Department of Commerce Economic Development Administration**

<http://www.eda.gov/Research/Brownfields.xml>

EDA funds infrastructure enhancements in designated redevelopment areas or economic development centers that serve industry and commerce, provides planning grants, offers revolving loan funds and loan guarantees to stimulate private investments.

**THINK ABOUT...**using EDA to address cleanup and site preparation needs at reviving industrial areas...street, utility, port, and other infrastructure needs at Brownfields project sites...site revitalization planning...site marketing.

## **Small Business Administration (SBA)**

<http://www.sba.gov>

SBA provides information and other non-financial technical assistance for redevelopment efforts, offers loan guarantees to support small businesses, and assists in developing management and marketing skills.

**THINK ABOUT...**using loan guarantees to attract capital to small businesses once sites are clean... using CDCs to help underwrite and finance building expansions or renovations... using informational resources available to help with loan documentation and packaging.

## **U.S. Department of the Interior National Park Service (DOI)**

[http://www.nps.gov/rtca/whatwedo/recent\\_innovations/wwd\\_ri\\_groundwork.html](http://www.nps.gov/rtca/whatwedo/recent_innovations/wwd_ri_groundwork.html)

DOI provides technical assistance for planning, assessment, and conservation in urban areas, assists in acquisition of surplus federal lands, and offers technical assistance for community revitalization.

**THINK ABOUT...**enhancing redevelopment projects with parks and open space amenities.

## **U.S. Department of Justice (DOJ)**

Weed and Seed Program: <http://www.ojp.gov/ccdo/ws/welcome.html>

DOJ's Brownfields Special Emphasis Initiative gives communities unsuccessful in seeking EPA funding a "second chance" to carry out initiatives aimed at site preparation and development, and community outreach and participation (targeted to Weed and Seed program grantees), advises and assists with the use of EPA Brownfields funds to clean up meth labs, and assists in crime prevention and improving the community climate through neighborhood restoration and crime prevention.

**THINK ABOUT...**plugging key community involvement, reuse planning, cleanup, and project development financing gaps when other funding sources fall through...using community outreach services to address site and neighborhood safety issues that can stigmatize contaminated sites.



### **U.S. Department of Labor (DOL)**

<http://www.doleta.gov>

DOL offers technical assistance linked to job training and workforce development in Brownfields Showcase Communities.

**THINK ABOUT...**using training and workforce development services as a cash flow offset incentive to companies locating at Brownfields sites

### **U.S. Department of Transportation Federal Transit Administration (DOT)**

[http://www.fta.dot.gov/funding/grants\\_financing\\_263.html](http://www.fta.dot.gov/funding/grants_financing_263.html)

DOT provides grants for transit capital and maintenance projects, offers discretionary capital grants for new fixed guideway transit lines, bus-related facilities, and new buses and rail vehicles, funds transportation and land-use planning, and promotes delivery of safe and effective public and private transportation in non-urban areas.

**THINK ABOUT...**enhancing site marketability with transit access...planning for and cleaning up sites used for transportation purposes...identifying contaminated sites for stations, lots, and other transit purposes.

### **U.S. Department of Transportation Federal Highway Administration (FHWA)**

[http://www.fhwa.dot.gov/environment/bf\\_disc.htm](http://www.fhwa.dot.gov/environment/bf_disc.htm)

Provides funds that can be used to support eligible roadway and transit enhancement projects related to property redevelopment – targeted to state and local governments and metropolitan planning organizations.

**THINK ABOUT...**using FHWA resources to cover some cleanup, planning and/or development costs, freeing up resources for other purposes...reconfiguring or modernizing roads or other transportation infrastructure to make them more complementary to site reuse opportunities... or to provide transportation related access or amenities that enhance site value

### **U.S. Department of Treasury Oversight of various tax incentives**

<http://www.treas.gov/press/releases/po3060.htm>

The Department of Treasury offers tax incentives to leverage private investment in contaminated property cleanup and redevelopment targeted to private sector entities.

**THINK ABOUT...**promoting the cash flow advantages of tax incentives...promoting the financial and public relations advantages of participating in contaminated property redevelopment to lenders...tapping into programs to expand capital access for small businesses that could locate at a redevelopment site.

### **Federal Housing Finance Board (FHFB)**

<http://www.fhfb.gov/Default.aspx?Page=44&Top=3>

FHFB funds community-oriented mortgage lending for targeted economic development funding. Funds are targeted towards a variety of site users and can be accessed through banks. FHFB subsidizes interest rates and loans to increase the supply of affordable housing and funds the purchase of taxable and tax-exempt bonds to support redevelopment.

**THINK ABOUT...**using FHFB to attract more lenders to specific Brownfields projects.

### **General Services Administration (GSA)**

[http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentType=GSA\\_OVERVIEW&contentId=10033&noc=T](http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentType=GSA_OVERVIEW&contentId=10033&noc=T)

GSA works with communities to determine how underused or surplus federal properties can support revitalization.

**THINK ABOUT...** incorporating former federal facilities into larger projects, to take advantage of site assessment resources.

### **National Oceanic and Atmospheric Administration (NOAA)**

<http://brownfields.noaa.gov/htmls/about/siteindex.html>

NOAA provides technical and financial assistance for coastal resource protection and management, funds workshops in Showcase Communities on contaminated property redevelopment-related coastal management issues, and coordinates a new "Portfields" initiative (initially targeted to port areas in New Bedford, MA, Tampa, FL, and Bellingham, WA).

**THINK ABOUT...** planning for a revitalized waterfront and restoring coastal resource...linking port revitalization needs with broader economic development purposes...linking site design needs at contaminated waterfront properties to end use planning.

### **U.S. Department of Defense Army Corps of Engineers**

<http://hq.environmental.usace.army.mil/programs/brownfields/brownfields.html>

USACE executes projects emphasizing ecosystem restoration, inland and coastal navigation, and flood and storm damage reduction that may be contaminated property-related, and provides technical support on a cost-reimbursable basis to federal agencies for assessment and cleanup activities.

**THINK ABOUT...**requesting assistance from the Corps for project planning in waterfront situations...defining Corps-eligible projects like riverbank restoration can enhance property revitalization efforts.

### **U. S. Department of Defense (DOD)**

Office of Economic Adjustment: <http://www.oea.gov/>

DOD provides extensive information on redevelopment of closed military base properties. Models developed may be useful to other types of contaminated property and community stakeholders

### **Office of Energy Efficiency and Renewable Energy/Center of Excellence for Sustainable Development**

<http://www.smartcommunities.ncat.org/>

This DOE office serves as a resource center on sustainable development, including land use planning, transportation, municipal energy, green building, and sustainable businesses.

### **Office of Building Technology, State and Community Programs (BTS)**

[www.eren.doe.gov](http://www.eren.doe.gov)

BTS works with government, industry, and communities to integrate energy technologies and practices to make buildings more efficient and communities more livable. The resources available through BTS can help ensure that Brownfields cleanups are connected to energy efficiency and sustainable redevelopment.

# Other Financial Mechanisms for Assessment, Cleanup and Redevelopment of Contaminated Property

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## Tax Increment Financing: A Brief Overview

One approach to financing the cleanup and redevelopment of contaminated properties is the creation of a tax increment financing (TIF) district. TIF is a financing technique wherein bonds are issued to fund redevelopment and the bondholders are repaid through the new or incremental tax revenues generated by new construction/development. Usually, urban renewal authorities and downtown development authorities have the ability to create a TIF district.

For example, suppose a municipality creates a TIF district to facilitate redevelopment of several adjacent properties, including aging and vacant industrial buildings and former rail yards. Once the properties within the TIF district are redeveloped, property values will increase, which results in increased tax revenues. Property tax revenues from the TIF district are split into two revenue streams:

1. The first stream (base) is equal to the “As-Is” property tax revenues without redevelopment and goes to the same city, county, school district, and other taxing entities (the base is allowed to increase with the market over time).
2. The second stream (increment) is the net increase in property taxes resulting solely from new development. The increment can be used to fund the redevelopment through Tax Increment Financing, which diverts the increment revenues to pay for annual debt service on construction bonds.

## Energy and Mineral Severance Taxes

Energy and mineral severance taxes are excise taxes on natural resources “severed” from the earth. They are measured by the quantity or value of the resource removed or produced. In the majority of states, the taxes are applied to specific industries such as coal or iron mining and natural gas or oil production. They are usually payable by the severer or producer, although in a few states payment is made by the first purchaser. When production rates of minerals and energy are high these funds can grow to significant amounts.

As of 2005, 39 of the 50 states had some form of severance taxes. Naturally, use of these funds vary from state to state so check first to see how these funds can be applied in your state. Application and eligibility procedures also vary from state to state.



## **APPENDIX B**

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### **State Program Information**

