Building Capacity:
Brownfields Redevelopment for Community-Based Organizations

A Model Technical Assistance Program




National Center for Neighborhood & Brownfields Redevelopment

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Program Introduction

This program handbook is intended for use by government, nonprofit or academic organizations and agencies that want to work with community-based organizations, building their capacities to become active players in brownfields redevelopment. Many brownfields are small or oddly-shaped sites scattered throughout the residential neighborhoods of older industrial cities. These sites are not often addressed by private development, nor are they high priorities for city development agencies. Yet they can dramatically impact the health and economy of the nearby communities.

Many community-based organizations (CBOs), often organized as Community Development Corporations (CDCs,) work in these neighborhoods to improve the quality of life in a variety of ways. Some larger and more developed CDCs have achieved great success by purchasing brownfields and redeveloping them to meet community needs, such as affordable housing. Others are poised to become more active participants in addressing brownfields, but because of limited staff knowledge and resources, coupled with the complexities of brownfields, have refrained from involvement.

This program is intended to work with these organizations to build their knowledge, preparing them for meaningfully participate in brownfields redevelopment decisions affecting their neighborhoods. CDC leaders can be advocates or facilitators, drawing attention to sites, collecting information, educating residents and helping to market sites. The CDCs can also monitor the condition of the sites and actively help inspect any engineered controls placed on the sites once redevelopment has occurred to assure the controls remain protective. Finally, CBOs, equipped with new understanding and skills, might actively pursue the purchase of brownfields sites and redevelop the sites for productive uses to benefit the community.

The overall result of this capacity building program will mean redevelopment of more brownfields in distressed neighborhoods where CBOs are often the leading voice for revitalization.

The first step is to identify community organizations working in distressed urban neighborhoods with brownfields sites. This program as designed will be most effective with those organizations that have a

mission to revitalize their communities and have demonstrated the organizational capacity to be stable entities for years to come.

The information presented in sections 1 through 5 of this handbook has been tested with Community Development Corporations in Pennsylvania and New Jersey, and is designed to be presented by you, the experts and assistance agencies, to the CBOs in five separate sessions.

Process of Providing Technical Assistance:

1. Identify CDCs/CBOs with organizational stability working to revitalize distressed neighborhoods where they are brownfields.
2. Connect with CBO through city or other regional CDC support organization.
3. Explain program and offer to provide assistance to CDC staff and Board.
4. Conduct an initial interview with CBO to assess current experience and interests in brownfields in order to customize the assistance sessions.

Before beginning the assistance program with a CBO, you may want to ask questions such as:

CBO Initial Questions

What is the area that you serve?

Do you have a map of your service area?

How many undeveloped or underused brownfields sites are within the neighborhood(s) you serve? What do you know about each of them?:
- Ownership/history
- Level of contamination
- Plans
- Other features/constraints

What is your primary concern regarding brownfields in the neighborhood or area that you serve?
- Type of new use
- Level/type of cleanup
- Health impacts
- Economic impact on our property values
- Source of jobs
- Other?

What has been your organization's prior experience with brownfields site redevelopment projects? Why did you get involved?

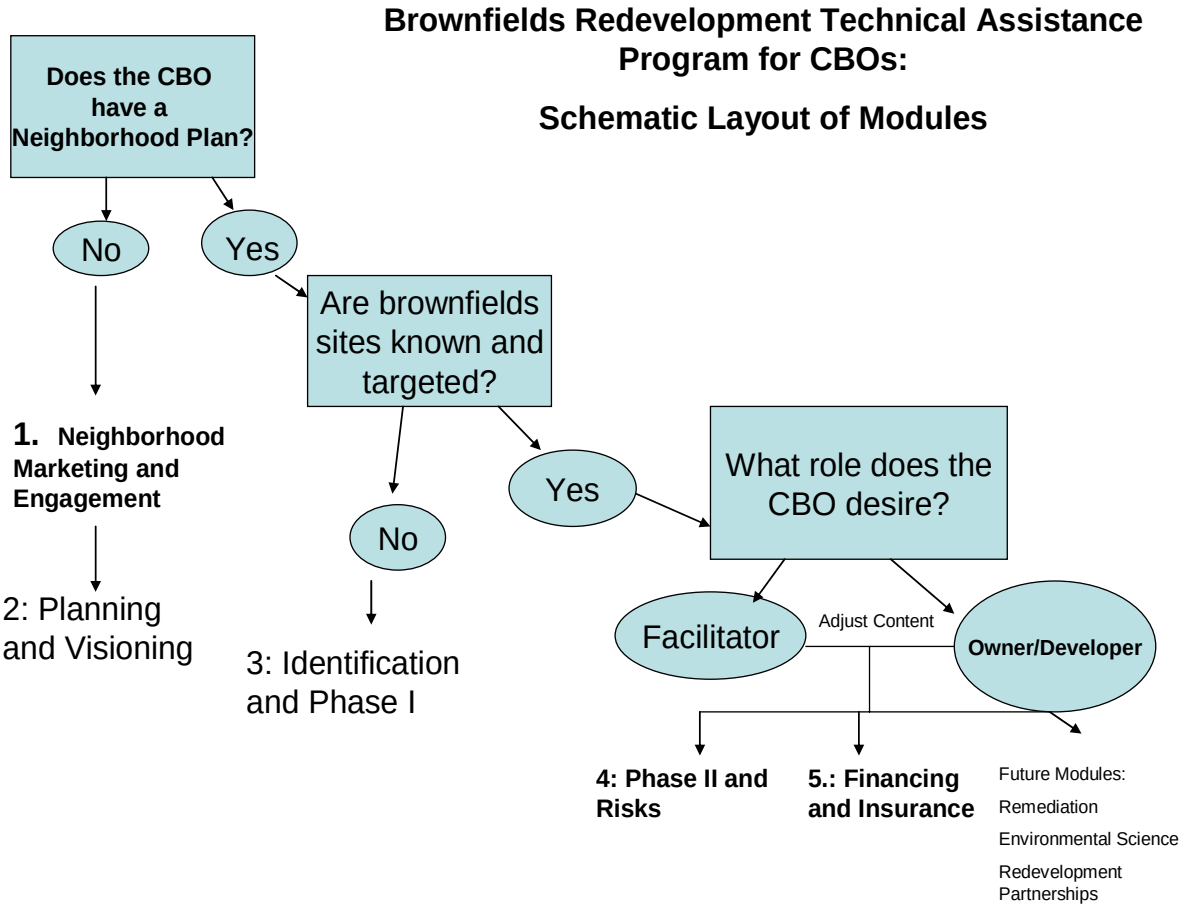
Clarify type(s) of role:
- Outreach/Education
- Facilitation
- Watchdog
- Pre-development Activities
- Owner/Developer

Clarify stage(s) of development:
- Identification
- Assessment
- Cleanup Plan
- Remediation
- Reuse Planning
- Construction/New Use

Would you like to change your role in brownfields redevelopment in the future – in other words, becoming more or less involved? Or involved in a different aspect?

Is there a site that your organization is particularly interested in? Why? For what purpose? How does it relate to larger neighborhood revitalization goals?

5. Evaluate the needs of the CBO and discuss the modules in the program, according to the program layout:



Modules 1 through 5 have been developed and are contained within this handbook. The program could contain additional modules covering advanced topics such as remediation, environmental sciences, and redevelopment planning and partnering.

For the five modules in this handbook, this schematic display above illustrates how they fit within the development stage and interests of the CBO. In other words, a CBO that has not yet engaged in comprehensive neighborhood planning and community engagement related to land use and development should begin with modules 1 and 2. If the CBO has recently completed a neighborhood planning and visioning initiative, these modules could potentially be skipped, and the next question to ask is if the CBO knows about brownfields sites and has some idea of which sites are of interest to the community. If the answer is no, module 3 is appropriate. If the CBO already has

completed some preliminary assessment of brownfields sites and has good basic knowledge about brownfields, modules 4 and 5 address the more advanced topics necessary to move toward pre-development stages. At this point, the CBO should have an idea of the role that they desire. That is, do they want to act as a facilitator in moving the site toward redevelopment (educating the public, helping to market the site), or do they want to purchase and act as developer? The content of these modules can then be modified to apply to either of these roles. This will occur as you move through the content of the module with the CBO and respond to questions based on their desired level of involvement.

6. Arrange a time for you, the provider, to meet with the CBO at their offices. It is helpful for two people from the provider organization to attend. In some cases, you may want to include an expert in the topic, such as a financial expert for module 5, or a technical expert for module 4. The CBO should invite those on the staff most directly related to revitalization, land use and development planning. A particularly interested Board member or resident leader could also attend, or, at the discretion of the CBO, a local official who is an important stakeholder.
7. Conduct the sessions according the format described below.
8. Decide on your level of availability for addressing follow-up concerns and convey that to the CBO.
9. Remain in contact for scheduling the next session. The sessions are most effective when about 6-8 weeks passes between them. This allows time for some follow-up tasks to occur and for the CBO to move forward with development of skills, resources and activities that are introduced or taught in the sessions.

Format of Sessions:

The sessions are designed to be carried out in a small group of no more than six or seven people, ideally sitting around a large table. The written materials serve as a guide to what is presented, but they are not necessarily followed in exact order, nor is each item necessarily covered. The providers of the assistance serve as a resource themselves, walking through the topical content, but responding in a give and take fashion to the concerns and real issues facing the CBOs.

It is important to begin the session by going through the purpose of the session, assumptions, goals and content of the session (introductory section). For some of the sessions, the providers need

to prepare and bring along materials related to the neighborhood, such as GIS maps of the neighborhood (module 1), or to review any specific reports that have been prepared related to brownfields sites in the neighborhood (modules 3 and 4).

The primary features of the format are:

- On-site delivery
- 2-3 hour sessions with CBO senior staff and possibly Board and/or resident leaders
- Session material provided in notebook, but customized to CBO needs and stage of development/skills.
- End session with “action items” or tasks that the CBO will carry out to follow through on objectives of session.

OVERVIEW of the MODULES

1. Neighborhood Marketing, Improvement and Participation through Brownfields Redevelopment

This assistance involves tools and methods for helping a CBO to empower and engage neighborhood residents in neighborhood planning and brownfields redevelopment. It also includes strategies for establishing neighborhood identity and promoting the assets of the neighborhood in order to attract investment to the brownfields site(s) within an overall neighborhood identity and marketing campaign.

2. Planning and Visioning for Brownfields Reuse in a Neighborhood Revitalization Strategy

This module consists of community visualization tools including a group mapping exercise and area prioritization techniques. It also includes a basic primer on brownfields redevelopment, focusing on helping the CBO to determine its desired or appropriate role in site reuse and redevelopment as it relates to overall neighborhood revitalization goals.

3. Phase I Site Assessment: Brownfields Identification and Community Engagement

This assistance session covers the purposes, requirements and methodology of conducting Phase I site assessments. It focuses on the role of the CBO in gauging community preferences for future land development and engaging residents in Phase I site assessment methods. The tools in this module help in understanding the implications of results on remediation and reuse decisions, particularly with regard to housing, open space and community-oriented end uses.

4. Moving from Phase I to Phase II Site Assessments and Understanding Risks

The goal of this assistance session is to help CBOs to interpret site assessment reports so that they can assess the potential areas of concern, know what to look for in Phase II reports, and know what questions to ask of technical consultants. The CBO will understand the purposes and methodology of the Phase II assessment process. The session also focuses on how the PA, SI and RI information affects remediation and reuse decisions.

5. Financing and Insurance Programs for Brownfields Assessment and Cleanup

This assistance session presents educational materials that describe, in lay language, the programs and funding streams available for brownfields identification, assessment, remediation or redevelopment from public and private sources. The CBO receives assistance in understanding how to access and apply for funds, and how to partner with other recipients of brownfields funds.

Assistance Module 1:

Neighborhood Marketing, Improvement and Participation through Brownfields Redevelopment

Introduction

Assistance Module: "Neighborhood Marketing, Improvement and Participation through Brownfields Redevelopment"

Assumptions:

- CBO has not been extensively engaged in comprehensive neighborhood marketing or physical improvement projects but is interested to learn more about them.
- CBO has already engaged in some community involvement, but is interested in learning more about how to increase quality and quantity of participation regarding redevelopment planning.
- CBO has identified one or more brownfield sites for cleanup and/or reuse as part of neighborhood revitalization, and may or may not own the properties.

Session Objectives:

Through this assistance, the CBO will acquire greater knowledge and ability to:

- Help to develop and promote an identity for the neighborhood.
- Engage community residents in more active roles in neighborhood revitalization and brownfields redevelopment activities.
- Know what questions to ask about assessing neighborhood conditions and needs for neighborhood improvement and capacity-building and where to go for additional information.
- Understand the components of designing and implementing an effective resident survey.

Assistance Module: "Neighborhood Marketing, Improvement and Participation through Brownfields Redevelopment"

Session Description:

The session will consist of:

1. Neighborhood Identity and Marketing
    - Why is it important?
    - What is the concept of "branding"?
    - What can a CBO do to market a promote an identity?
    - What role can a CBO play?

2. Community Assessment, Participation and Capacity-Building
    - How can a CBO perform assessments of neighborhood quality of life issues?
    - How can quality and quantity of participation be improved?
    - What are the purposes and methods?
    - How can residents be more involved in brownfields redevelopments?
    - How should you manage expectations?
    - What are the roles for organizations and for experts?

Tools, Processes and Discussion:

Neighborhood Identity and Branding Exercise
Walk-through of Neighborhood Assessment Techniques
Public Participation "Framing" Exercise and Discussion

Neighborhood Identity and Marketing Strategies

Neighborhood Identity and Marketing:

Creating a neighborhood identity, or "branding" allows a neighborhood to create its own identity, rather than leaving it to others (media, other cities, rumor mill, etc.) to create their reputation and image. It can help to retain and attract residents and businesses. It can also make the neighborhood into a recognizable graphic identity that ties marketing and business attraction together in a package.

A "brand" for a neighborhood will say something about the quality of life and the affordability – to help people make choices about where they want to live. (Just as the brand of a car says something about its type of safety, price and amenities.) A key point about brands is that: **A brand is what people *outside* the neighborhood think and perceive**. It is a summary of experiences, emotions and perceptions. Therefore, if you do not work to define it or modify it, others will define it for you by default. **A brand is also a *promise* or pledge to deliver an identified service or quality.** A brand is a signal of what to expect from a place, so it is important to be realistic.

As part of its mission to improve quality of life, a CDC might be involved in a comprehensive neighborhood improvement campaign or project, or might be part of a team of local stakeholders trying to revitalize or remake the image of a community to build community pride, improve aesthetics and health, and bring more economic activity back to serve the neighborhood.

ABC's of Branding and Identity

A. ***Accentuate the positive***: It is important to define identity in positive terms, capitalize on strengths and improve weaknesses. Every neighborhood already has an *unarticulated brand* made up of positive and negative connotations and the *feel* of the neighborhood.
B. ***Build awareness and cohesion***: As part of the process, it is important to build awareness, appreciation and participation by residents and businesses. The neighborhood acts as a living organism made up of the people who work and live there and the places and spaces in it, and they need to have input into the process and support it.
C. ***Consistently express it***: The "brand" should build on the positive essence of the neighborhood, articulate it and sell it. It should be about the things that make the neighborhood a *home*. Soon, after the brand is identified and promoted, residents will begin to demand all that the brand promises – good schools, livable homes, amenities, etc.

Branding Exercise: How to create an identity or brand:

Goal: Create a ***brand identity*** – a short and compelling description of the neighborhood and its key qualities – the message you want to provide – a name and tagline. (Try to do it in less than 10 words)

Form a steering committee to head the effort. Partnerships are important. Include the business association or chamber of commerce, local organizations, churches, schools and neighborhood associations.

Obtain consensus on these questions in focus groups:

Questions to consider:

1. What threads bind the community together?

2. What is the essence of the neighborhood? "Who are we?" "What makes us tick?" (This is not the same as saying, "What problems & issues do we have?")

3. What is icon of the community's essence? "What one thing best represents us to the world?"

Identity can be based on any of these, or a combination of them:

- **Assets**
- **History**
- **Future**

Assets:

What is a community asset?

It can be a person or people.
It can be a physical structure or place -- a town landmark or symbol, community park, a wetland, or other open space.
It can be a business that provides jobs and supports the local economy.

Some questions to consider

1. What is the size and boundary of the community? Is it defined by a bordering river, mountain, or man-made feature?

2. What people have helped to define the area in a positive way? What does the neighborhood do? Was it a mining community, or associated with a particular faith or cultural heritage? Or is it currently a hub for a particular type of business?

3. Where is the heart of the neighborhood?

Nail down the key community interest areas. Find where the meetings places are, and the center of community celebrations and exhibitions. Perhaps there is an area where local musicians gather to play music, or a shopping area that attracts local gatherings. Locate where this point of interest is and try to identify what makes this area an attraction to locals. If no heart exists, this could be an alarming reason for the downsizing and economic decline of the city. In this situation, an excellent way to gain community support and make a lasting impression is to try to ***redevelop property*** that could develop into a community meeting place.

History:

Find where historical files are kept for public use and learn about the history of the community.

- When was the town operating with economic vitality and when did economic decline begin?
- What was the largest industry of the city, and why did it discontinue?

When searching files, identify any news that seems to reflect a certain theme or culture of the community: cultural attributes, such as local holidays and celebrations; well known residents; resident/community meetings; and any event that involves a high level of local resident involvement.

- Next, take a look at the visual themes in the community:
    - Is there a recurring architectural influence or original construction that may be lost if not attended to?
    - Is there a certain expectation for design that must be respected in order to receive backing from local residents?
    - Are there historical and preservation areas?

This is important even in towns that are nearly abandoned, since recreating a historical representation can often be a key component of revitalizing potentially contaminated sites. The more relevant the idea is to the community, the more accepted and supported the whole revitalization will be. Garnering community involvement is more likely if an artist's conception or model can be shown to the community as this will help engage people and provide feedback.

Future:

Think about where the neighborhood wants to be in the future. What is its vision? What personality does it want to portray?

- What function does the neighborhood want to serve? (bedroom community, economic center, industrial)
- Who are the target "customers" for the neighborhood? (e.g. current residents, commuters, businesses, tourists, empty nesters, young professionals)

How does the neighborhood want to position itself versus other areas of the city?

Select a brand "name," slogan and logo

Select a "brand" that is positive and forward-thinking and emphasizes the qualities that will define that vision, whether it is a current or historical asset or a quality such as vibrancy, safety, aesthetic beauty, ease of access, etc.

Obtain input on potential names and logos and narrow to three (using consultant or consensus of committee). Consider having a contest to develop the logo. It unleashes creative spirit and builds local ownership.

Questions to consider:

What best "brands" your iconic essence?

The "Name Game": Ideas on Names

- The shorter the name, the better.
- Keep the name simple.
- Use alliteration, if possible. Note: a repeated sound is more effective and memorable than repeated letters.
- Be easy to say and read (spoken as spelled). Test: do you have to spell the name over the phone?
- Avoid negative connotations. People often associate inappropriate ideas and things with names. Do informal market research to make sure that there are no negative connotations with the name.
- Use a name, not an acronym (a word formed from the initial letters of a name). "Names" are 60% more memorable than an acronym.

Take a vote from residents, business people, children and make a final decision on name (and logo – or do the logo separately).

What to do with a brand?

Promote it:

- Strategically communicate it
- Develop a logo – graphical icon to symbolize name/identity
- Share logo, on a style sheet, with all local businesses, transportation agencies, City officials, etc. Consider licensing the logo for promotional use only.
- Put it on plaques and signs – "way-finding" signs and banners marking boundaries. Put it on garbage cans!
- Sell or give away T-shirts, mugs, window stickers, car magnets, etc.
- Use it in newspaper and magazine advertisements

Beautify and improve neighborhood:

- Consider a strong and continuous design theme, usually through landscape and streetscape elements.
- Identify the area with clear components, including set boundaries and clearly defined destinations.
- Improve neighborhood perception

Market the neighborhood's revitalization around the "brand":

- The brand is the building block for marketing the revitalization. Outline advantages of revitalization to key stakeholder groups. For example what does it mean for the residents? For the City? For businesses?
- Encourage shop owners and organizations to incorporate the neighborhood name as part of their names (e.g. West End Garage, West End Dental, etc.).
- Develop brochures for the neighborhood and consider hosting festivals or special neighborhood pride days. Create a "signature event" using and leveraging the neighborhood name. Generate foot traffic and circulation.

Measure success:

1. Awareness: measure through surveys. How many people are aware of the neighborhood name? Telephone survey or pedestrian intercept.
2. Perception: measure through surveys. How many people have changed their attitudes about the neighborhood? How many within targeted broups understand the attributes of the neighborhood?
3. Foot Traffic: Count people moving through certain areas at a fixed time of day. Good job for a college student.

4. Participation: Is the community "owning" the brand? How many businesses are participating in brand-related activities?

Examples:

Carol Stream, Illinois

Recognizing the importance of its main corridor to the overall aesthetic of the community, the Village initiated a bold program to address a lack of cohesive identity, which they perceived as a liability in promoting economic development and maintaining strong social/cultural attachments within the municipality.

Beginning with a broad-based citizen participation program, village leaders decided to enhance two key corridors - North Avenue and Gary Avenue. This participation process allowed citizens to help design the corridor and empowered them as stakeholders in the community enhancement effort.

The ultimate design of Carol Stream's industrial North Avenue was a $1.2 million enhancement that provided a series of visual experiences that built upon key focal points and environmental features. The plan for Gary Avenue created a major statement of community focus in the heart of the Village, with emphasis on gateways, a village center area, and enhancement of key intersections.

These corridors now have an easily identifiable presence that automatically suggests themselves to retailers considering new locations, real estate investors looking for the next development opportunity, and even diners discussing lunch options.

Uptown Memphis

Uptown Memphis has been running a neighborhood branding campaign in the *Memphis Flyer* since 2003 to endeavor to inform and educate the general public about the initiative.

The idea for the campaign is to show people that the Uptown area has something new and something different. Below are some of the ads that have appeared.

Neighborhood Assessment

Assessing Neighborhood Quality

A neighborhood quality of study examines events within a neighborhood in terms of how they affect the quality of life for residents of that neighborhood. A typical study would look at the following:

* Environmental and Physical Conditions, including crime
* Economic Conditions
* Facilities and Services, and other social issues
* Political Conditions

The results of the study can be used to evaluate neighborhood conditions, and initiate the planning process for making changes to improve the neighborhood.

A neighborhood quality of life study can conducted by a City, a non-profit organization, or any neighborhood group.

Land Use and Building Condition Surveys

1) How to do land use visual survey
2) Sample coding sheets
3) How to use results

Conducting a Quality of Life Survey- Step by Step:

(NOTE: Insert sample surveys)

I. What type of information do you want?

- Descriptive – how many people feel a particular way about xyz
- Exploratory – does the community care about xyz or is there something else
- Explanatory – what would the community like to do about xyz and why

II. What method do you want to use?

Some methods for collecting data ...

1. Surveys
2. Interviews
3. Focus Groups

1. Overview of Surveys

Survey research works well ...

- when collecting original data
- when describing a population too large to observe directly
- when measuring attitudes

Keep in mind your desired response rate, which is the number of people participating in a survey divided by the number selected in the sample.

Strengths of Survey Research

- Useful in describing the characteristics of a large population.
- Flexible - many questions can be asked on a given topic.

Weaknesses of Survey Research

- Can seldom deal with the context of social life.
- Inflexible in some ways.
- Subject to artificiality.

Types of Questions for Surveys

- **Open-ended questions**
  Respondent is asked to provide his or her own answer to the question.
- **Closed-ended questions**
  Respondent is asked to select an answer from among a list provided by the researcher.

Guidelines for Asking Questions

- **Choose appropriate question forms.**
- **Make items clear.**
- **Avoid double-barreled questions.**
- **Respondents must be competent to answer.**
- **Respondents must be willing to answer.**
- **Questions should be relevant.**
- **Short items are best.**
- **Avoid negative items.**

- **Avoid biased items and terms.**
  - **Refers to any property of questions that encourages respondents to answer in a particular way.**

Guidelines for Questionnaire Construction

- **Be aware of issues with ordering items.**
- **Include instructions for the questionnaire.**
- **Pretest all or part of the questionnaire.**
- **Make sure you time how long it takes to complete. Ask yourself if it is a realistic time to expect from people.**

How to conduct a survey

- Mail
- Phone
- In-person
- Internet

2. Overview of Interviewing

Interviewing is a data-collection encounter in which one person (an interviewer) asks questions of another (a respondent).

- **When Interviewing, you can "probe" (ask for elaboration). You cannot do this with a survey.**

Seven Stages of Interviewing

1. **Thematizing**
2. **Design**
3. **Interviewing**
4. **Transcribing**
5. **Analyzing**
6. **Verifying and checking facts**
7. **Reporting**

Training for Interviewers

- Discussion of general guidelines and procedures.
- Specify how to handle difficult or confusing situations.

- Conduct demonstration interviews.
- Conduct “real” interviews.

3. Overview of Focus Group

- **A group of people are brought together in a room to engage in guided discussion of a topic.**

Advantages of Focus Groups:

- Socially oriented research method
- Flexible
- High face validity
- Speedy results
- Low in cost

Disadvantages of Focus Groups:

- Less control than individual interviews.
- Data can be difficult to analyze.
- Moderators must be skilled.
- Difference between groups can be troublesome.
- Groups are difficult to assemble.
- Discussion must be conducted in a conducive environment.

III. Analyzing the Data

Qualitative Analysis

- Methods for examining social research data without converting them to a numerical format.
    - Searches for explanatory patterns.
    - Links data collection, analysis and theory.

Quantitative Analysis

- Numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect.

Types of Quantitative Analysis

- **Univariate** - simplest form
  - Describing a case in terms of the distribution of attributes that comprise it.

    Example:

  - Gender - number of women, number of men.

- **Bivariate** - subgroup comparisons
  - Describe a case in terms of two variables simultaneously and how they are related.
  - Example:
    - Gender
    - Attitudes toward equality for men and women

- **Multivariate** - analysis of multiple variables simultaneously.
  - Can be used to understand the relationships between variables more fully.

Resident Involvement

Resident Involvement

Background:

CDCs working to improve quality of life in a neighborhood often encounter the following issues:

- How can we involve residents in ways that build their personal capacities and leadership?
- If it involves a brownfields site, how and when should we strive for "meaningful" participation of community members in brownfields decision making?

Community involvement provides a forum for residents to become informed about civic affairs and actively involved in making decisions that ultimately impact their community. Meaningful community engagement is beneficial in several ways:

- May promote environmental justice
- Fosters collaboration
- Minimizes conflicts
- Improves information flow
- Improves community understanding
- Improves the quality of life for citizens
- Allows for community advocacy
- Develops sense of local ownership and pride

Specifically with regard to brownfields projects, community involvement can:

1. Identify overlooked local knowledge – Community members may have useful information about the site's history, chemical uses, human activities, industrial processes and past land uses. This is especially critical in early stages of redevelopment, such as when doing Phase 1.

2. Streamline efforts – Community members may have special issues or concerns that, if incorporated into a project at the outset, may help to reduce the likelihood of challenges to risk assessment, remediation, and revitalization plans.

3. Gain acceptance – Community members who contribute to the revitalization planning process will better understand the process and will be more likely to support a project they had input in

Well-informed residents and stakeholders who understand the project's issues and goals (in the case of a brownfield redevelopment, for example) are more likely to be able to meaningfully participate than those who are kept in the dark or given only small amounts of information out of context.

Challenges of public involvement include:

- Reaching and motivating residents representing various areas and interests in the neighborhood
- Building trust
- Effectively conveying to local residents other stakeholders' involvement and interests

Additional challenges specific to brownfields redevelopment include:

- Communicating technical information in an easy to understand manner
- Willingness of developer to share decision-making power
- Affected stakeholders priorities and time commitments
- Whether or not "the brownfield" is seen as a problem

Who is a stakeholder and what is "community"?

A stakeholder is anyone who has a stake in what happens. The term forces us to think about who will be affected by any project, who controls the information, skills and money needed, who may help and who may hinder. It does not follow that everyone affected has an equal say; the idea of the ladder is to prompt thinking about who has most influence.

Community is a problem term if it is used as a blanket description for `all those other people'. There are many communities, defined by, for example, people's shared interests, locality, age or gender. The `community' which participates will depend on the project or program because different people are interested in different issues.

Levels of participation:

(Based on Arnstein, S. 1969. "A Ladder of Citizen Participation," JAIP, 35(4):216-224.)

Keep in mind that different levels of participation are appropriate at different times to meet the expectations of different interests.

1. **Give Information** – tell the community what you are planning to do

2. **Seek Consultation** – provide options/alternatives and seek comments/feedback

3. **Make Decisions Together** – seek input (new ideas/alternatives) from community and decide together on which options to implement.

4. **Take Action Together** – expansion of making decision together – this involves forming partnerships in order to implement

5. **Provide Support for independent community initiatives** – you can support other groups' initiatives.

How to decide on the level of participation:

Questions to ask of your organization:

1. Why is the participation process being started? Who will have the final say?

2. Who/what are the key community interests, including community organizations?

3. What is your organization's capacity to lead the participation process? Within your organization are there key people to lead the process? Are they clear about the purpose of the participation process, the roles and responsibilities, and the answers to basic questions which will be asked when you go public?

4. What will you do with feedback (if you use a feedback method)? What kind of follow-up are you willing to commit to?

5. What is your timescale? Can you develop an action plan based on the level of participation?

In choosing a method (specific technique/ tool), be sure to consider:

- Is it appropriate for the level of participation?
- Do you (the organization) have the necessary skills and resources?
- Can you follow through? e.g. there is no point doing a survey unless you can handle the responses and use the information.
- Do you need help? An experienced trainer or facilitator may be necessary for some of the more complex methods.

The Four Phases of Establishing a Public Participation Process

1. Initiation

In many urban neighborhood revitalization projects and processes, the CDC is the logical party to be the "initiator" of the participation. The assumption is that the CDC will manage the participation process. As the initiator, the CDC will really be able to decide the level of participation – deciding where on the ladder of participation the process will be.

Clarify why you want to involve others

- Why is it necessary to involve other people? Is it for your benefit, theirs, or both?
  Is it for:
  A. Community Relations
  B. Input on cleanup
  C. Input on new use
- Is the purpose primarily informational or decision-making? This will help to determine the best method.
- Consider what you are trying to achieve at the end of the day, and why this may be best done with community input.
- List the key interests and who will have to be involved, both within your organization and outside.

Define/ understand your role

Consider the part you may be expected to play in a participation process:

- Someone who controls resources?
- A go-between?

- A representative of an interest group?

- Someone who will initiate, plan or manage the process?

- Someone using participation techniques - producing newsletters, holding meetings, running workshops?

If you are trying to do more than one of these, could there be conflicts? How will others see you? Can you split roles with someone else?

2. Preparation

1. Develop an internal work plan. Consider...
- Have colleagues in your organization agreed upon what they wish to achieve, and the level of participation?
- Will the organization be able to deliver on any promises with regard to the outcomes of the participation (e.g. what will done with the public input)?

2. Make contact informally with key interests.
- Review the levels of participation different interests may seek. For example, will you need or be seeking representatives from local government, the local school systems, religious organizations, youth organizations, businesses, other human service organizations, senior citizens, the police, parent groups, colleges and universities, etc.?
- Consider the possible obstacles which may occur, and the support you will need.

3. Begin to develop a strategy which covers:
- The main deadlines and timeline
- Resources needed
- Technical support available

3. Participation

Methods of participation

There are many different tools or techniques (also called methods) for participation. Various methods support the different levels of participation. Ideally, you first identify the level of participation, and then you select the appropriate method(s). For each method, there are benefits and drawbacks. **(Please see Appendix.)**

In general, methods can be classified as:

- Passive Information methods – lowest ranking on the ladder
  - *Written information*
  - *Websites*
- Active Information methods

Public meetings
Educational workshops

- Public Input methods
  Charettes
- Problem-solving methods – highest ranking on the ladder
  Public panels
  Formal citizen boards

It is easier to recruit participation when your organization is rallying around a particular project or issue. Find a hook (something to attract people).

Suggestions for hosting successful public meetings:

1. Invite individuals directly impacted by the revitalization project. (Known as "affected" public)
2. Also invite "general public". Pay particular attention to the identification of groups that do not traditionally participate in the revitalization process, such as minority and low-income communities.
3. (Optional – ideal, but not necessarily "easy") Establish education programs or a repository to access data (such as a public library), or both, so that groups or individuals can obtain timely, accurate information that enables them to have a meaningful influence in decision making. To increase readability, lengthy documents should be summarized into a fact sheet and kept at the repository along with the full-length documents.
4. Provide a facilitator at all formal or informal public meetings who is sensitive and trained in dealing with cross-cultural exchanges. This is especially relevant for communities with a high percentage of minorities.
5. Provide timely and frequent (minimum 2) announcements of meetings. Pay careful attention to wording. Be sure to use multiple media formats (poster in public spaces, notices in paper, announcements at other venues, etc.).
6. Develop sponsoring and co-planning relationships with other community groups, ensuring them shared roles in developing agendas, setting of goals, and providing leadership and outreach
7. Plan meetings that are accessible and accommodating. Consider holding meetings at locations that are handicap accessible and have access to public transportation. Consideration should also be given to such issues as childcare, access for the disabled, and language interpreters.
8. Plan schedules to accommodate the needs of the affected communities, for example, hold meetings after usual working hours.
9. Create an atmosphere of equal participation. Pay attention to how the chairs/tables are spaced out.
10. Make the event "inviting" – have food/drinks, nametags, etc.
11. Maintain clear goals by setting an agenda – make sure the agenda is available to all.

4. Follow up

Many participation processes fail because the organizations promoting the process cannot deliver satisfactory response to motivate residents to continue to participate. Include work within your organization to parallel with community interests. Many problems in participation processes arise within the lead organization.

Remember: it takes time! This is not an overnight process.

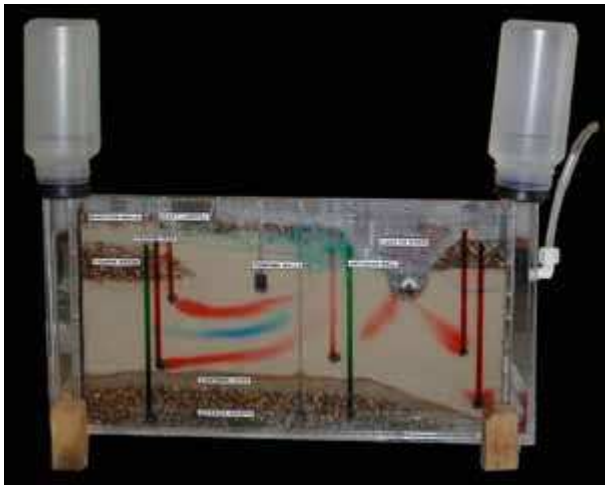
Here are some tips:

- Give a name to your core group of community participants, such as a Task Force or Community Action Team. Give them an identity and a clear role.

- Run different types of workshop or educational sessions to stimulate interest. Invite targeted residents or the public.

Example: Educational Session on Groundwater Contamination

Sand Tank Groundwater Model



The groundwater model is a plexiglass tank filled with sand, gravel, and clay to represent a slice of the earth. The model simulates how water and contaminants move through different aquifers allowing people to "see" groundwater.

The groundwater model can be used to teach youth and adults many groundwater concepts

- Encourage partnerships with local schools or churches in co-sponsoring community forums.

> One innovative approach for a community event as part of a brownfields redevelopment is to host a "going away" party for the site. If the site has meant something significant to the community and yet must be demolished, this allows those who fondly remember the former site time to say good-bye while redirecting the focus of the community to the revitalization efforts.

Issues to Consider Regarding Use of Consultants or Experts

When and how should you involve them?

If you do use consultants:

- Get a recommendation from a previous client if possible.
- Give a clear brief on what you are trying to achieve, the level of control and boundaries for action.
- Play an active role in their work to provide continuing guidance and learn from the experience. Don't use the consultants as insulation.
- Make sure you and your organization can deliver in response to the ideas they produce, and you can handle things when they leave.
- Remember that most consultancy exercises are only as good as the client.

References

Appendix – Public Participation Toolbox

References:

(Some of the information in this binder is adapted from information found at: www.SMARTe.com)

Discovering Community Power: A Guide to Mobilizing Local Assets and Your Organization's Capacity. Asset-Based Community Development Institute, Northwestern University, 2005.

- how to identify community assets (organizations and individuals) that can participate in your CBO's projects.
- http://www.northwestern.edu/ipr/abcd/kelloggabcd.pdf
- Case studies http://www.northwestern.edu/ipr/abcd/hiddentreasures.pdf

Public Involvement: How Active Participation in Environmental Issues and Decisions Makes Economic Sense and Broadens the Knowledge Base, http://cepm.louisville.edu/Pubs_WPapers/practiceguides/PG12.pdf

Wilcox, David. 1994. *The Guide to Effective Participation*. http://www.partnerships.org.uk/guide/index.htm

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APPENDIX

Public Participation Toolbox

(Insert document from source: IAP2, International Association for Public Participation, www.iap2.org)

Assistance Module 2:

Planning and Visioning for Brownfields Reuse Within a Neighborhood Revitalization Strategy

Introduction

Assistance Module: "Planning and Visioning for Brownfields Reuse Within a Neighborhood Revitalization Strategy"

Assumptions:

- CBO has not undergone comprehensive neighborhood planning process.
- CBO has limited experience or skills with GIS map creation.
- CBO may have some targeted priority areas for revitalization, but has incomplete knowledge about constraints and opportunities.
- CBO does not have brownfields inventory and has incomplete knowledge about the brownfields sites in the neighborhood.
- CBO is interested in playing a more active role in neighborhood revitalization and in developing strategic development priorities.

Session Objectives:

Through this assistance, the CBO will acquire greater knowledge and ability to:

- Gather neighborhood data to support community-based planning.
- Interpret geographic information from GIS-produced maps.
- Engage in community visioning resulting in goals and targeted strategies about the reuse of brownfields sites as part of neighborhood revitalization.
- Understand opportunities and constraints posed by brownfields and other land use and infrastructure.
- Understand the components and processes of neighborhood revitalization planning and resources and processes to support plan development.
- Ask the right questions of regulators, government officials and property owners to understand land redevelopment issues relevant to revitalization goals.

Assistance Module: "Planning and Visioning for Brownfields Reuse Within a Neighborhood Revitalization Strategy"

Session Description:

The session will consist of:

1. **Community visioning with group mapping**:
   - What does the neighborhood look like?
   - What does the neighborhood want and need?
   - How do they visualize reality and a redevelopment vision?
2. **Opportunities of brownfields remediation and redevelopment**:
   - What are logical and realistic priority areas for revitalization?
   - How do potential brownfields sites fit into the vision?
   - What are the factors that affect the potential reuse of the brownfield site?
3. **Comparison of community preferences with existing conditions:**
   - What role can the CBO play with regard to neighborhood planning and revitalization, including brownfield sites?
   - What additional tools and steps are necessary?

Tools, Processes and Exercises:

- GIS maps of neighborhood
- Group mapping exercise
- Visioning tools and processes: computer-based, physical models, community charettes (described, with possible demonstration)
- Prioritization checklist
- Resources for neighborhood planning
- Processes and forms for data gathering and community assessment of neighborhood assets and condition.

Neighborhood Planning

Neighborhood Planning and Organizing

Community planning and organizing are essential.

Organizing:

- Sends signal that community has value to protect and power to influence
- Recruits both veteran and emergent leaders and institutions to work together

Planning with Organizing:

- Allows community to be pro-active in shaping brownfields redevelopment
- Allows better choice of a role
- Makes effective use of technical and social resources

Process:

1. Conduct stakeholder outreach (residents, Faith-based Organizations, CBOs, block and tenant associations businesses)
2. Develop roles and working relationships
3. Create communication and decision-making structures
4. Work with stakeholders to identify needs and goals.
5. Planner helps community to shape a "vision" (charettes, workshops, informal networking)
6. Build plan on consensus principles.

When plan is complete: Develop community leadership and capacities of community groups to implement plan and have influence on neighborhood development.

Funding for Planning:
Federal: EPA Community Grants
Private Foundations: Wachovia Regional Foundation
State: NJDCA, Neighborhood Revitalization Program

CBOs, Brownfields and Neighborhood Revitalization

Community benefits from brownfields redevelopments:

- Priority to receive local jobs in assessment, planning, surveying and construction
- Funds for job training programs (EPA Job Training grants)
- Proper cleanup and a reuse that is environmentally safe and meets community needs

The community planning process itself can help to define future roles for brownfields redevelopment: i.e., it can result in creation of advisory board, participation in design charettes, builds consensus and results in effective compromises over benefits and burdens

Brownfields redevelopment can fit within comprehensive vision of community's future.

What can CDCs do even if they do not want to own or develop a site?:

1. Educate – Manage perceptions for both community and potential developers

Serve as "broker" of information on public programs, available sites, resources, lists of contractors for environmental audits and cleanups.

Equip community with knowledge to meaningfully participate in determination of cleanup standards.

Establish education programs or a repository to access data (such as a public library), or both, so that groups or individuals can obtain timely, accurate information that enables them to have a meaningful influence in decision making. To increase readability, lengthy documents should be summarized into a fact sheet and kept at the repository along with the full-length documents.

2. Facilitate – Be source of history and context in neighborhood.

Work with government and private interest to devise redevelopment package.

Lead private sector through the process.

Form or participate with advisory committee or working group.

Develop sponsoring and co-planning relationships with community groups, ensuring them shared roles in developing agendas, setting of goals, and providing leadership and outreach.

Ensure that participation efforts reflect cultural diversity and communication differences among ethnic groups.

Neighborhood Data

Sources of Neighborhood Data

1. Geographic Data:

Primary Source:
Visual survey for land use and condition at the parcel level (*see page 2-9 for sample coding instructions and form)
- Use of interns or students
- Use of community members
- Handheld systems
- Photography

Secondary sources:
- EPA (www.epa.gov)
- USGS or state agencies for environmental baseline (landscape, habitat, natural features, sources of pollution, etc.)
- Local realtor – MLS data on home sales and land costs

2. Demographic and Socioeconomic Data (Secondary sources):

- U.S. Census (www.census.gov)
- City records: Department of Revenue, Board of Revision of Taxes (for ownership and tax status), Planning Commission, Water Department (shutoffs)
- Other: www.hallwatch.com for landlord information

Demographic and socioeconomic information includes:

1. Racial/ethnic composition
2. Age distribution
3. Income distribution
4. Poverty rate
5. Unemployment rate
6. Homeownership and housing
7. Languages spoken
8. Sensitive populations, such as children, women of childbearing years and the elderly
9. Economic bases (how self-sufficient)
10. Social capital – skills, education

3. Resident or Locally-based Information:

- Neighborhood condition
- Asset and liability identification
- Resient perceptions and opinions
- Sociocultural conditions (stability, family structures, institutions)
- External linkages
- Local pressures or needs to create low-income housing or jobs
- Climate for investment – local/regional trends (from local or regional economic development organizations)

Primary sources:

- Building and Land Use Condition Survey (See samples on following pages)
- Quality of life survey (See Module 1)
- Preference survey (See Module 1)
- Interviews/focus groups (See Module 1)
- Vision Survey- participants look at slides showing different types of possible community improvements and numerically judge their preferences.

SAMPLE 1: NEIGHBORHOOD CONDITION SURVEY

Definitions and Instructions:

With a map or diagram showing each parcel, indicate on a coding sheet, for each block/lot or address:

USE:

V= vacant S= single family M= multifamily A= apartment building
C= commercial O= other (please note use)
Multifamily properties contain 2-4 units
Apartment Buildings contain more than 5 units
Number of mailboxes usually matches number of units in a house

CONDITION:

P= poor F= fair G= good E= excellent

For vacant lots, make general assessment:

Poor= Rubbish present, no maintenance

Fair= Clean, with little or no landscaping (little or no rubbish, but weeds or dirt ground)

Good= Landscaping is maintained (lawn mowed frequently)

Excellent= Well maintained landscaping (neat lawn, for example)

For buildings, assess each component and overall:

Poor= Component cannot perform its function without immediate repairs or replacement

Fair= Component is performing its function but could use maintenance or replacement

Good= Component is well maintained

Excellent= Component is new or recently renovated

COMPONENTS:

Streets:
Pavement - Look for cracked or stained asphalt/concrete, potholes, or missing areas

Litter - Litter within street, including compressed debris in gutters

Trees:
Look for presence or absence of trees, then estimate their condition. Dying or dead trees are often missing leaves from the center/top of their branch structure.

Rate the condition of the street on which the block is located.
Evaluate both sides of the street but only that portion of the street adjacent to the block.

Buildings:

Abandoned? Answer Yes/No (Y/N)

Foundation - Look for cracks in foundation or buildings that do not seem to have level bases.

Stairs, Porches - Railings should be level and well supported.

Roof, gutters, chimney - Roofs with visible bowing should be graded fair or poor depending on the extent. Look for missing roof shingles. Chimney should be straight.

Exterior Surfaces - includes siding condition and paint. Look for sagging/bowing of siding and bare spots in paint.

Windows, doors - Look for broken glass, tears in screens. Windows in poor condition may have interior plastic sheeting installed to keep out cold air.

Driveway, sidewalks - Look for cracked or stained asphalt/concrete, potholes, or missing areas.

Landscaping - Excellent landscaping will be neatly maintained on a daily or weekly basis. Good landscaping gets maintenance at least once per month. Fair receives attention but may have considerable weedy or dead area. Poor is left wild.

Overall

Your most important judgment. Now that you've assessed the condition of all the components, decide where the building should be assessed overall.
This is NOT an average of the previous scores; it is your overall impression of the condition of the property.

SAMPLE 2: Land and Building Condition Survey

How to Use this Survey Instrument

Note: when you're doing the surveying, before you do anything else, put the date and your name in the survey form.

Recording Information

The survey instrument has seven spaces for each parcel. They are called:
"Lot" for land use type
"Address" for addresses
"BC" for building condition
"O" for occupancy
"NU" for number of units
"VLC" for vacant land condition

Land Use (Lot):

Code the land use of the parcel according to the following:

1—Apartment building
2—Private House
3—Public Housing
4—Mixed commercial/residential
5—Commercial (except bar and parking lot)
6—Bar/liquor store
7—Parking lot
8—Factory
9—School
10—Church
11—Cemetery
12—Community/Social Service Organization
13—Public Building
14—Vacant Lot
15—Park

Address:

In this space write the address of the building on the parcel. If there is no building, leave it, the Building Condition, and the Occupancy spaces blank. If there is more than one building, write the range of addresses on the lot.

Building Condition (BC): (NOTE: Insert more photos to serve as examples)

Write the number that corresponds to the building's conditions. If there is more than one building on a parcel (such as a townhouse-style development) then generalize their conditions.
1—Excellent: The structure is new or recently renovated.
2—Good: There is no damage to the structure. It is clean and well maintained. Below is an example:

3—Fair: The structure needs minor cosmetic repairs that might include: painting touch up, new signs, 1-2 new windows, new lighting, repair of rain gutters, covering graffiti, and fixing the porch, stairs, or railing.
4—Poor: The structure has some major problems, or a multitude of cosmetic repairs to be done. These might include: need for more than 2 replacement windows, deteriorating brick/masonry façade, fencing needs replacing, exterior features such as the porch, railing, or steps needs minor repair.
5—Critical: The structure has more than three structural problems, or a cracked/deteriorating foundation. It could be defined as needing to be demolished. Below is an example:

Street Condition (SC): (NOTE: Insert more photos to serve as examples)

1—Good: A good rating would include these street-scape attributes: good lighting, trees, no litter (trash cans), defined cross walk, clean sidewalk, even (level) sidewalk. Below is an example:

2—Fair: Missing 1-2 of the street-scape attributes described above. Below is an example:

3—Poor: Missing 3-4 of the above street-scape attributes. Below is an example:

4—Critical: Missing more than 4 of the above attributes.

Occupancy (O):

Write whether or not the building appears to be occupied. If it is currently vacant, code whether it appears abandoned or not.
1—Occupied
2—Vacant (but not boarded up)
3—Vacant and Boarded
If a building is split between two uses, or there is more than one building, then notem them both. For example, a building with occupied apartments n the upper floors and vacant (unboarded) storefronts on the ground floor would be coded as follows:
Be sure to note in the margins what is vacant and what is occupied. You can also write on the back of the sheet if you need any space to clarify this category.

Number of Units (NU):

Count the doorbells or mailboxes or powerboxes on each building. Code the survey as follows:
1--One unit
2--Two units
3-6--Three to six units
7+--Seven or more units

Vacant Land Condition (VLC):

If the parcel has a building on it, leave this blank. Otherwise, code it as follows:
1—Good: The land is clean, and any grass/weeds growing have not grown much beyond ankle-high.
2—Fair: The land is relatively clean, and there is little dumping aside from standard litter (beer/soda bottles, newspapers, etc.). The grass/weeds have grown to about knee-high.
3—Poor: The land is being used to illegally dump garbage, either household or industrial, and is therefore a health risk. The grass/weeds have grown very high, and it may be difficult to see what is actually on the ground.

Group Mapping Exercise

Group Mapping and Visualization Exercise

Materials:

- One copy of a neighborhood map for each participant
- Two large table-sized maps of neighborhood, showing boundaries, streets, major landmarks (if possible) and parcels or building footprints (one for "reality" and one for "vision")
- Color pencils or markers and round colored stickers for use as "points"
- Overhead projector or Powerpoint slides (Optional)

Background:

We all form impressions and images of our physical surroundings. Understanding the way people view their neighborhoods can help in understanding and predicting how the land may be used and, among other uses, what aspects of the neighborhood should be preserved or changed. This exercise uses mental maps and visualization to explore community perceptions and preferences.

Exercise Steps:

Step 1: Visualization of reality: Where are you now?

General discussion questions to start:

- When you imagine this neighborhood, what mental pictures come to mind?
- Are the images positive or negative?
- How were they developed?
- How has the neighborhood changed over time?
- What is it like now?

Look at maps showing neighborhood streets, landmarks, zoning, land use and key features. Use colored markers and "points" to develop concept of "reality."

- Public places (parks, plazas, community buildings)
- Semi-public places (churches, schools, other)
- Vacant land
- Places people congregate (positive and negative)
- Pathways for walking/biking that are currently used
- Corridors for public transportation – stations and links between them
- Heavy vehicle traffic routes
- Critical intersections (dangerous or high-crime)
- Unique features (natural or man-made)

- Known brownfields or other environmental hazards
- Places you would not take visitors ("Critical areas" – How did you decide this?)
- Places you would take visitors (Why?)
- What is the heart of the neighborhood?
- What places have recently changed?

Use the five elements of mapping:
* Paths: (streets, walkways, transit lines, canals, railroads)
* Edges: (breaks between districts, railroad cuts, edges of developments, walls)
* Districts: (downtown, residential, etc.)
* Nodes: (re: junctions, a crossing of paths, a street corner 'Hang-out')
* Landmarks: (re: building, sign, store, mountain)

Discussion questions:

1. What patterns, if any, are apparent on the map?

2. How are the "positive" features related to the "negative" ones spatially? Where are potential brownfields sites in relation to these areas?

3. What do you consider to be the most important features drawn on your map? Why are they important?

4. Are there blank areas on your map? If so, why? What do you guess is in these 'empty' spaces?

5. How long have you lived in the neighborhood? Do you travel mostly by car? Bike? Walking? How have these affected your mental map?

Step 2. Development of Vision: Where do you want to be?

Now, look at the map to develop a vision for revitalization.

General question:

- Now that you know where are you now, where do you want to be?

* How do you want your grandchildren to be able to describe the neighborhood?*

Specifically:

What do you want to preserve/protect? (assets)
What do you want to create? (needs)
What do you want to change? (opportunities)

What changes are already planned?

For each of the features marked in the above "reality," think about:

Are they being used in a safe, positive, beneficial way?
Can they be improved? How?

Following the group discussions, draw a "vision" map.

Step 3. Evaluation and Planning – How do you get there?

General Question:

- Now that you know where are you now and where do you want to be, how do you get there?

Once there is an agreed upon reality and vision, citizens need to work closely to plan for allocation of resources and redevelopment.

Other Discussion Questions:

- If you developed more than one revitalization vision scenario, how do you evaluate differences?
- What kinds of additional information concerning the neighborhood would help you to make more informed decisions about future planning?
- What are the practical applications for the information you have produced?
- How can the revitalization vision improve life for residents and be used to attract people to the neighborhood?

Prioritization Checklist:
Factors in evaluating priority areas for redevelopment

For identifying target areas generally:

- Land use considerations: character and zoning of area (acceptability)
- Municipal or other plans (Master Plan, UEZ, Redevelopment, TIF, Capital Improvement, Historical, other) Have other plans failed? Why?
- Need for other environmental audits (wetlands, stormwater, etc.)
- Adequacy of public works? (water, sewer, power, emergency response, transportation access)
- Assembly of parcels – combination of vacant land and abandoned structures
- Ownership – how convoluted is it? impacts on time and effort
- Safety and visual quality
- Significant features (waterfront, historical aspects, recreational value)
- Political considerations

Prioritization should reflect:

- Community goals and preferences – is it a "good fit"?
- Natural resource assets
- Impacts of redevelopment
- Environmental justice considerations
- Community socioeconomic and demographic profile
- Cost evaluation (acquisition, site preparation, construction)
- Available funding
- Redevelopment potential (attracting investment and support)
- Level of contamination

For brownfields site:

- Phase I assessment data (use local knowledge as a start):
  - Boundaries
  - Site condition
  - Historical use
  - Ownership and tax status
  - Local regulations
- Nature, location, pathways and risks posed by contaminants (Phase II data – if available)
- Environmental constraints – need for cleanup and/or demolition => cost and time, carrying costs (consider risk-based cleanup and IC's)
- Early identification of end user

Simple Matrix Characterization of Brownfields Sites

	Low Contamination	**High Contamination**
High Redevelopment Potential	High Potential – A Sites	Potential Candidate – B or C Sites
Low Redevelopment Potential	Potential Candidate – B or C Sites	Cleanup and Closure

The Concerted Action on Brownfield and Economic Regeneration Network (CABERNET) has proposed a model for characterizing different types of sites. The ABC model can assist institutions that are responsible for regional development and investment. Depending on the cost of revitalization and the value of the land, sites can be classified as:

1. A Sites - these represent development projects that are driven by private funding
2. B Sites - these projects are characterized as being on the borderline of profitability. These projects tend to be funded through public-private co-operation or partnerships
3. C Sites - these projects represent mainly public sector or municipality projects driven by public funding or specific legislative instruments (for example: tax incentives)

Brownfield Basics

Brownfields Basics for Community-Based Organizations

Definition:

EPA: Brownfields are 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. (They are typically abandoned, idled or under-utilized commercial or industrial facilities.)

Brownfields could be –

- former service stations,
- former dry cleaners,
- factories,
- warehouses,
- parking lots,
- hangers,
- lots where heavy machinery was stored or repaired,
- abandoned railroads,
- former railroad switching yards,
- air strips,
- bus facilities,
- landfills,
- and many more types of facilities.

Is there a brownfield in my community?

- Is there land that is idle, vacant, or less productive than it could be?
- Are concerns about environmental contamination contributing to the problem?

If you answered yes to both questions, then that property might be a brownfield.

Why should community organizations get involved?

- Local residents live with consequences of brownfields.
- Community organizations have incentive to initiate redevelopment when other public or private actors might not.

What can community organizations do?

- Purchase a site and clean it up
  - -Allows for complete control
  - -Site acquisition requires financial resources and technical and legal expertise.
  - -Need clear vision of the end use
- Ask local government agencies to clean up a city-owned site
- Partner with government agencies to clean up a site
- Partner with private entity to clean up a site
  - Determine community visions and preferences
  - Approach list of private investors, banks, corporations, etc.
  - Goal: Match private interests with community needs
- Encourage private entity to clean up a site
- Act as a watchdog when others clean up a site
  - Can serve as advisor, informal or formal advocate
- Organize and educate the community for more meaningful involvement

Basic steps in brownfields redevelopment:

1. **Find a site**
   Survey neighborhood
   Drive-by
   Community Input: Public Meeting to Identify and Assess Needs
   Consult City – Brownfields Office, Planner, Tax Office
   State Env. Department Lists
   US EPA Lists
   Identify site compatible with neighborhood's revitalization strategy

2. **Gather information**
   Phase I or Preliminary Assessment

3. **Plan a strategy**
   Goal: Identify highest priority sites for development
   Ease of obtaining site control
   Degree of contamination
   Condition of site
   Condition/status of adjacent properties
   Access to Transportation
   Site Infrastructure
   Prioritize "need" versus "readiness" of property with community input.

4. **Make a deal**
   Identify funding resources, programs, pre-development barriers, managing risks and liabilities

5. Investigate
Phase II Assessment

6. Cleanup
Cleanup plan based on uses, budget, long-term strategy
Submit Notice of Intent to Remediate (NIR) to DEP
Conduct cleanup or install controls
Conduct post-cleanup sampling to demonstrate attainment
Submit final report to DEP
Release from liability based on report

7. Redevelop site

EPA Brownfields Law: Small Business Liability Relief and Brownfields Revitalization Act (2002)

Main Features:

Brownfields Assessment Grants - provide funding for brownfield inventories, planning, environmental assessments, and community outreach. ***These are not available to nonprofits under current legislation.***

Brownfields Revolving Loan Fund Grants - provide funding to capitalize loans that are used to clean up brownfields.

Brownfields Job Training Grants - provide environmental training for residents of brownfields communities.

Brownfields Cleanup Grants - provide direct funding for cleanup activities at certain properties with planned greenspace, recreational, or other nonprofit uses.

Key players in brownfield cleanup and redevelopment:

State Environmental Agencies: Overseeing cleanups, and may offer incentives such as liability protection from further cleanup.

State or Regional Economic Development and Planning Agencies: May provide economic incentives, such as low-interest loans, for the redevelopment of brownfield properties.

Commercial Lenders: Provide loans to support the cleanup and redevelopment of brownfields.

Technical Consultants: Design and implement the investigation and cleanup of environmental contamination on brownfields.

Legal Counsel: Provide advice about regulatory requirements, negotiating with regulators and prospective buyers, drafting sales agreements, and communicating with the other people interested in the project.

Developers: Manage process of cleaning up and adapting properties for new uses.

Citizens and Community Groups: State and federal cleanup programs may require public involvement such as opportunity for notice and comment from the public.

United States Environmental Protection Agency (EPA): Provides funds to support assessment, cleanup and redevelopment incentives.

Federal Government Agencies: Federal government agencies, other than EPA, may provide technical and financial support for brownfield redevelopment including the Department of Housing and Urban Development, the United States Army Corps of Engineers, the Commerce Department's Economic Development Administration, and the Department of Interior's Groundworks USA Program.

How much will the cleanup cost and how long will it take?
The cost and timeframe of the cleanup will vary considerably depending on many factors. The level, type, amount, and extent of contamination are key determinants. The cost will depend on the standards that apply to the cleanup, particularly whether the use of the property is considered in setting cleanup levels. For example, a residential site has to be cleaned to a higher standard than a site intended for commercial use.

Assistance Module 3:

Phase I Site Assessment: Brownfields Identification and Community Engagement

Introduction

Assistance Module: "Phase I Site Assessment: Brownfields Identification and Community Engagement"

Assumptions:

- CBO has undergone some level of a neighborhood planning process.
- CBO has limited environmental experience or technical skills.
- CBO has identified one or more sites for cleanup and/or reuse; the CBO may or may not own the properties.
- CBO requires guidance on how to assess and prioritize sites.
- CBO is considering, but has not decided on, a future use for a targeted site or area.
- CBO is interested in playing a more active role in neighborhood revitalization and in developing strategic development priorities.

Session Objectives:

Through this assistance, the CBO will acquire greater knowledge and ability to:

- Work with existing sources of data and gather relevant neighborhood data to identify potential brownfields sites.
- Understand the components of a community-based brownfields inventory.
- Recognize the purposes of conducting a Phase I Site Assessment.
- Understand the components and content of a Phase I Site Assessment.
- Engage the community in performing preliminary site assessment steps.
- Be equipped to make decisions about when to conduct a formal Phase I Site Assessment.

Session Description:

The session will consist of:

4. **Brownfields Identification and Planning**:
   - What data are required for a neighborhood brownfields inventory?
   - How should a brownfields inventory be organized and used in relation to neighborhood planning?
5. **Conducting a Phase I Site Assessment**:
   - When are Phase I Site Assessments required? How does it fit with redevelopment planning?
   - What can the CBO complete in a preliminary, in-house assessment?
   - How are sites prioritized for formal Phase I?
   - Who conducts the formal Phase I Site Assessment?
     - Hiring a consultant
     - Budgeting and resources
   - What are the essential components or content of a Site Assessment?
   - What is the role of the CBO in completing the Site Assessment?
6. **Interpretation of Phase I Site Assessment / Next Steps:**
   - How are Site Assessments interpreted?
   - What are the implications of the Site Assessment on the inventory and site prioritization process?
   - What additional tools and steps are necessary?

Tools, Processes and Exercises:

- Sources of data for brownfields inventory
- Sources of data for Phase I Site Assessment
- Checklist for hiring an environmental professional
- Typical reporting format for Site Assessment
- Exercise: Conducting the Interviews for a Site Assessment
- Exercise: Example Phase I Site Assessment / Critique

Brownfields Identification and Planning

How does brownfields redevelopment fit in with neighborhood revitalization?

A CBO with a mission of neighborhood improvement might decide to compile a list of potentially contaminated sites that impact the social, economic and physical health of community residents and that represent opportunities for cleanup and reuse that can remove the derelict site and benefit the community.

The identification, assessment, cleanup and reuse of a contaminated site has many implications including the roles that the revitalized site plays in sustaining social, natural and economic systems and public health.

How can a CBO begin to compile an inventory of brownfields sites in its neighborhood?

Step 1: Identify Brownfield Properties:

Drive-by or windshield survey
Community Input: Public Meeting to Identify and Assess Needs
Consult City – Brownfields Office, Planner, Tax Office
State Environmental Department Lists
US EPA Lists

Step 2: Collect Corollary Information:

Basic Information:
- Acreage
- Location
- Condition of Site
- Current Ownership
- Tax Status
- Liens
- Zoning Designation

Detailed/Historical Information:

- Historic uses of property and surrounding properties
- Aerial photographs going back 50 years
- Property atlas references going back 100 years
- Sanborn fire insurance maps
- Deed search
- Municipal or other plans (Master Plan, UEZ, Redevelopment, TIF, Capital Improvement, Historical, other) Have other plans failed? Why?
- Interviews with former employees, local residents, etc.

Why is site history important? Future land use may be predetermined in some cases by the historical use of the land, such as when the level of site contamination makes effective remediation cost prohibitive. Evaluating historic and current land use is critical in determining whether there is a current risk associated with a site.

Step 3: Map Properties

Include:

- Ownership
- Infrastructure
- Abandonment or vacancy status

Step 4: Set Criteria and Prioritize Properties

Goal: Identify highest priority sites for re-use or development

Factors:

- Ease of obtaining site control
- Degree of contamination
- Condition of site
- Condition/status of adjacent properties
- Access to Transportation
- Site Infrastructure - adequacy
- Community goals and preferences – is it a "good fit"?
- Identification of end user
- Natural resource assets
- Impacts of redevelopment
- Environmental justice considerations
- Cost evaluation (acquisition, site preparation, construction)
- Available funding
- Redevelopment potential (attracting investment and support)
- Land use considerations: zoning of area (acceptability)
- Need for other environmental audits (wetlands, stormwater, etc.)
- Assembly of parcels – combination of vacant land and abandoned structures
- Safety and visual quality
- Significant features (waterfront, historical aspects, recreational value)
- Political considerations

Step 5: Select Properties for Further Investigation

Prioritize "need" versus "readiness" of properties with community input.

The basic steps of a development model include:

1. Predevelopment stage - an idea, refinement of the idea, site history, and due diligence
2. Community Involvement - early and continual communication and involvement is important for long term sustainable benefits
3. Securing the deal - contract negotiation, formal commitment or finalizing the contracts
4. Development - construction and completion of the project
5. Management - managing property, asset and portfolio, and formal opening of the new development

Conducting a Phase I Site Assessment

Conducting a Phase I Site Assessment

a. Overview

Why are Site Assessments performed?

- To evaluate a property for acquisition
- A lender or insurer may require an assessment
- To guide the CBO or prospective owner whether to consider a property for revitalization project, or to help prioritize sites under consideration
- To guide the CBO or prospective owner on options for future use of the property

b. In-House Assessments

Why do an In-House Assessment?

- The CBO and others in the community can gather a significant amount of information about a site or area, and use this as a tool to decide:
    - Whether the proposed future use of the site is realistic
    - The relative priority for redeveloping a site, if more than one area is being considered
    - Whether to move forward with a formal Phase I Site Assessment
- The assessment is a useful and tangible project for a community that shares a common concern about neighborhood revitalization
- The information gathered by the community during the Preliminary Assessment can be used for a future Phase I Site Assessment. This can reduce the cost of a future Phase I Assessment, if conducted with oversight from an environmental professional.

What information can the CBO gather for a Preliminary Assessment?

- To document any existing knowledge about the site and/or to find other local community members who possess such knowledge, particularly as they relate to environmental conditions of the property
- Based on the CBO's knowledge of the past/present operations or observations, whether contamination at the property is present or likely to be present

- Identification of past/present owners or tenants who can provide information on the history of operations and/or ownership of the property
- Conducting the title search, review of tax maps, and/or review of Sanborn maps relative to the property
- To contact the municipality, historic association, fire dept, health dept, and other local authorities to obtain site information, such as: historic use, zoning, permits, liens, compliance history, inspection history, spills, fires, easements, wells, etc.
- The fair market value of the property is determined based on the assumption that there are no environmental issues at the site. If environmental issues are identified, the CBO may be able to determine whether the purchase price is reasonable, as compared to the appraised price with consideration of environmental issues.

c. Formal Phase I Site Assessments

When are Phase I Assessments required?

- When a party may potentially claim or desires protection from CERCLA Superfund liability as an innocent landowner, a bona fide prospective purchaser, or a contiguous property owner.
    - CERCLA ("SIR-klah") is the Comprehensive Environmental Response, Compensation, and Liability Act, also known as "Superfund"
    - Without this protection, the owner of the property could be held partially or fully responsible for cleaning up the site.
- Phase I's are required in order to obtain federal EPA Brownfields Grants
- Phase I's must be performed within one year of the date of acquisition of the property

What is the purpose of Phase I Site Assessment?

- To comply with US EPA's "All Appropriate Inquiry Rule" in order to claim protection from CERCLA liability described above
- To determine any "Recognized Environmental Conditions" on the property
    - Presence or likely presence of any hazardous substances or petroleum products on the property
    - A current, past, or threat of release into structures, or on/into the ground, groundwater, or surface water of the property
    - Such releases or threat of releases would pose a threat to human health or the environment

  - When a site needs to be cleaned up, it must be remediated to health-based or risk-based standards which are established by US EPA and/or the State:
    - Future use of property is factored into the cleanup requirements
    - Wastes may be left in place if human / environmental exposures are controlled

Who conducts the Phase I Site Assessment?

- An Environmental Professional who must have specific education, training, and experience to perform Site Assessments (see attached checklist)
- Typical cost: $2,000 - $6,000 per site
- There are many qualified contractors out there, both small and large firms
- If the firm is capable and the CBO so desires, other non-scope items may be added to the Site Assessment at an additional cost:
  - Lead-based paint assessment
  - Mold
  - Radon
  - Asbestos
  - Regulatory compliance assessment
  - Indoor air quality
  - Phase II sampling and analysis
  - Evaluation of possible cleanup options
  - Evaluation of practical reuse scenarios
  - Integrity of existing structures or subsurface

How do we find financial assistance for our assessments (in New Jersey NOTE: Replace with state-specific programs)?

- Review the prerequisites to determine the applicable funding programs and speak to the Program Manager or representative before applying for funding
- Hazardous Discharge Site Remediation Loan and Grant Program (www.njeda.com)
- Petroleum Underground Storage Tank Remediation Upgrade and Closure Program (www.njeda.com)
- Revenue Allocation District, "RAD," funding (www.njeda.com)
- Redevelopment Area Bond Financing and Bond Financing (www.njeda.com)
- Smart Growth Predevelopment Funding (www.njeda.com)
- Fund for Community Economic Development (www.njeda.com)
- Brownfields Redevelopment Loan Program (www.njeda.com)
- NJ Revelopment Authority Urban Site Acquisition Program (www.state.nj.us/njra)

- NJRA Loan Guarantee Program (www.state.nj.us/njra)
- New Jersey Pre-Development Loan Program (www.state.nj.us/njra)
- Urban Enterprise Zone (www.newjerseycommerce.org)

Nuts and Bolts of a Phase I Site Assessment

- The American Society for Testing and Materials (ASTM) has published a standard for conducting a Phase I Environmental Site Assessment; the standard is called ASTM E 1527-05 and meets EPA's requirements for All Appropriate Inquiry. [The ASTM standard can be ordered or downloaded from the ASTM web site for a fee of about $45].
- The EPA's AAI standards are available from EPA and provide overall guidance on conducting a Phase I. These guidelines are less descriptive than the ASTM guidelines, but following them will result in the same liability protections.

  Required:
  - Interviews with past and present owners, operators and occupants;
    - The current owner or occupants must be interviewed
    - Past owners and occupants must be interviewed if necessary to meet the objectives of the Phase I
    - If the property is abandoned, the owner of a neighboring property must be interviewed
  - Reviews of historical sources of information;
  - Reviews of federal, state, tribal and local government records;
  - Visual inspections of the facility and adjoining properties;
  - Commonly known or reasonably ascertainable information; and
  - Degree of obviousness of the presence or likely presence of contamination at the property and ability to detect the contamination.

  Other Considerations:
  - Searches for environmental cleanup liens;
  - Assessments of any specialized knowledge or experience of the CBO or prospective owner
  - An assessment of the relationship of the purchase price to the fair market value of the property, if the property was not contaminated; and,
  - Commonly known or reasonably ascertainable information.

Where does the information come from for a Phase I Site Assessment?

- Interviews with past/present owners, occupants, employees, and neighbors
- Freedom of Information Act (FOIA) requests to State and Federal environmental agencies
- Aerial photographs going back 50 years or more
- US Geological Survey topographical maps
- Sanborn fire insurance maps
- Title / Deed search
- Publicly available Federal and state environmental databases
- Licenses and Inspections (look for permits requested)
- Federal / State / Local history of violations or enforcement actions
- Previous environmental assessments
- Commercial providers that specialize in Phase I data reports: Environmental Data Resources Inc (1-800-352-0050 or www.edrnet.com), Environmental Record Search (1-800-377-2430, 800-774-2731, or www.RecCheck.com)

What must the Phase I Assessment Report Include?

- Opinion as to whether there are recognized environmental conditions
- Opinion regarding the need for additional investigation
- Data gaps in the information collected which may affect the ability to determine recognized environmental conditions
- Qualifications and signature of the environmental professional(s) who conducted the Phase I Assessment
- There is no required format; see attachment for typical report format

2. Interpretation of Phase I Site Assessment / Next Steps:

How are Site Assessments interpreted?

- If the CBO has conducted a preliminary site assessment for one or more properties, the CBO can use this information to prioritize which site or area to target for revitalization and/or the performance of a full Phase I
- The Phase I report must be reviewed carefully for the determination of any *Recognized Environmental Conditions*. The CBO should discuss this with the consultant and/or the State environmental agency to determine the potential environmental risk of any such conditions and to scope the next steps (e.g., sampling, remediation)

- The Phase I report must be reviewed carefully to identify any *data gaps* that exist, particularly the extent to which such data gaps could affect the determination of recognized environmental conditions at the site. That is, what are the data/information gaps and how significant are they?

What are the implications of the Site Assessment for future land use?

- If the Phase I Site Assessment indicates that there are, or are likely to be, environmental risks associated with the site, the CBO can, in discussions with the State and the environmental professional, develop an idea of the potential cost of the next phase of investigation. It is also possible that preliminary remedial options can be discussed which may give some indication of the remedial costs.
- By comparing Phase I reports on several properties of interest, the CBO may be able to develop a relative ranking of the potential issues across several sites.
- The extent to which there are environmental conditions at the site may affect the reuse decision. For example, the level of soil contamination may preclude reusing the site for housing.

What additional tools and steps are necessary?

- Out-of-scope steps for completing the site assessment process (see: *Who Conducts the Phase I Assessment* above)
- Determination of the need for a Phase II or beyond
    - Sampling – to fill data gaps regarding potentially contaminated areas within a site
    - Remediation – limited or full-scale cleanup of the site to remove or reduce any hazardous substances present on site (i.e., in structures, in the soil, or in the ground water)
    - Determining other measures that might be necessary to control future exposures to any hazardous substances present on site
- Early and ongoing communication with the State environmental agencies (e.g., NJDEP) that would be involved in the investigation, cleanup, and reuse of a site
- Securing a "No Further Action" letter from the State that gives the (environmental) green light for redevelopment of the site
- Finding and securing sources of funding for the next steps (see above)

Checklist for Hiring a Qualified Environmental Professional

In connection with a Request for Proposal, we recommend the CBO to request and review the following information:

____ **Resumes** of all personnel involved in the Phase I Assessment

___Where more than one person is involved, the responsibilities of each person are described (i.e., project management, records review, interviews, site visit, report-writing, etc.)

___An Environmental Professional must supervise the work

_____ **Description** of relevant past projects, including Phase I/II Assessments, Brownfields redevelopment projects, experience with other site investigation or remediation projects

___Work experience in your State or locality

___Prior experience in performing Phase I/II Site Assessments or related activities (conducting interviews, records search and review, performing site inspections, multi-media sampling and analysis, interpreting environmental data, preparing site assessment reports)

___Experience within the industry associated with the property being assessed (e.g., aerospace, manufacturing, agricultural, military)

___Demonstrated knowledge of federal, state, local environmental laws and policies, particularly those related to the industry associated with the property being assessed.

_____ **References** who can attest to the consultant's or company's work on similar projects

The Environmental Professional must have (required):

_____ State or tribal issued certification or license:

___Current Professional Engineer's (P.E.) License, or

___Current Professional Geologist's (P.G.) License, or

___Other current federal or state license / certification to perform environmental site assessments; and

_____ Three years of relevant[1] full-time work experience;

-OR-

_____ B.S. degree or higher in science or engineering and

_____ Five years of relevant full-time work experience;

-OR-

_____ Ten years of relevant full-time work experience.

[1] Relevant experience means the participation in the performance of environmental site assessments, that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases of hazardous substances.

Typical Report Format for Phase I Site Assessment (Source: USEPA, 2006)

Introduction. An introduction could include descriptions of: the purpose and objectives of the assessment; scope of services provided; methodology used to complete the inquiry; any significant assumptions made; limitations and exceptions; any modifications or deviations from the final rule requirements or from the ASTM E 1527-05 process; special terms and conditions; and information obtained from the landowner or user. The environmental professional and the person(s) who conducted the site reconnaissance and interviews may be identified.

Site Description. This section may describe the property location; site and vicinity characteristics; structures, roads, site improvements, and utilities; current and historic use(s) of the property; site topography, geology, and surface/ground water resources; and current and historic use(s) of adjacent properties.

User-Provided Information. The report may describe any information provided by the prospective landowner, or user, to the environmental professional. This information may include: title records; information of recorded environmental cleanup liens; recorded activity and use limitations (e.g., engineering controls, land use restrictions, institutional controls); specialized knowledge or experience held by the user related to the property or nearby properties; commonly known or reasonably ascertainable information; and relationship of the purchase price to the fair market value of the property, if it were not contaminated.

Records Review. The written report may include a section that summarizes the information found during the records review. This section may describe records that were reviewed to complete the inquiry including: physical setting sources (*e.g.,* topographic maps); historical use sources (*e.g.,* aerial photographs, fire insurance maps, street directories, newspaper archives); federal, state, tribal, and local records or databases of government records; and other environmental record sources (*e.g.,* prior investigation reports, tank/transformer inventories, spill records, permits, etc.).

Site Reconnaissance. The written report may include a section dedicated to describing the methodology used to conduct the visual inspection of the subject and adjoining properties. The description may include: when and who performed the reconnaissance; physical imitations (*e.g.,*snow-covered ground, limited access, safety concerns, etc.); general site setting; exterior observations; and interior observations. Additional information on evidence of staining, spills, odors, stressed vegetation, corrosion, pools of liquids, discolored water, ground surface alterations, and other conditions that might suggest a release or threatened release of hazardous substances also may be provided.

Interviews. A summary of the interviews conducted could include a description of when and with whom the interviews were conducted (*e.g.,* current property owner and occupants, site manager, attorneys, financial manager, local/state/federal government officials, past site owners and occupants) and the method used to conduct the interviews (*e.g.,* in person, written, telephone). If property is abandoned, this section may describe which neighboring property owners were interviewed and if applicable, which past owners and occupants were interviewed.

Findings. A findings section could describe the results of the assessment including the identified known or suspected recognized environmental conditions, historical recognized environmental conditions, and de minimis conditions. This section also may include findings related to, but not limited to: current and historic site usage; adjoining and nearby properties; hazardous substances and petroleum products; non-hazardous, solid, and hazardous waste management; water pollution; pits, ponds, and lagoons; drains and sumps; waste water; wells; septic systems; spills or releases; air emissions; storage tanks and drums; soil and groundwater contamination, polychlorinated biphenyls (PCB) contaminants, or other contaminants.

Opinion of the Environmental Professional. The written report **must include** the environmental professional's opinion(s) as to whether the inquiry identified conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject property. The opinion likely will be based on conditions identified during the inquiries (and potentially noted in a findings section), and include a discussion of the logic, reasoning, and rationale used by the environmental professional in developing the opinion. The environmental professional also must include in the final report an opinion regarding additional appropriate investigation to detect the presence of contamination at the property, if the environmental professional has such an opinion.

Data Gaps. The report should document and discuss significant data gaps that affect the ability of the environmental professional to identify conditions indicative of releases or threatened releases.

Conclusions. A conclusions section may be included that summarizes all identified conditions indicative of releases or threatened releases of hazardous substances (or recognized environmental conditions) connected with the property. The final rule does not require that any specific statements be made regarding these conditions, however, ASTM E 1527-05 requires that the report include one of the following written statements:

o *"We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of [insert address or legal description], the property. Any exceptions to, or deletions from, this practice are described in Section [ ] of this report. This*

assessment has revealed no evidence of recognized environmental conditions in connection with the property," or
o *"We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of [insert address or legal description], the property. Any exceptions to, or deletions from, this practice are described in Section [ ] of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following: (list)."*

Additional Services. If applicable, it may be useful to include a description of any additional services performed as part of the assessment that are beyond the scope of the final rule, and were contracted for between the user and the environmental professional. Additional services could include, but are not limited to: non-scope considerations (*e.g.,* lead-based paint, mold, radon, asbestos, regulatory compliance assessment, indoor air quality, etc.); broader scope of assessment; liability or risk evaluations; Phase II sampling and analysis; health and safety; evaluation of remediation techniques; etc.

References. A reference section may be included that lists the published sources relied upon to complete the assessment.

Signature(s) and Qualifications of the Environmental Professional(s). Include the statements and environmental professional(s) signature, as discussed above in "*What are the Documentation Requirements for All Appropriate Inquiries?*"

Appendices. Appendices could include: regulatory records documentation; environmental
database report; site map/plan; vicinity maps; site photographs; historical source documentation (building department records, local street records, chain of title documents, property tax records, zoning/land use records, aerial photos, fire insurance maps, USGS topographical maps); interview documentation; and qualifications of the environmental professional(s).

Exercises

Exercise:
Conducting the Interviews for a Site Assessment

Scenario: The CBO has identified a potential brownfields site that currently houses a vacant building and parking lot. The site is approximately ¾ acre in size. It is located within an urban neighborhood with a mix of commercial properties and residences. It is widely known that a dry cleaner had operated there for some time until it closed in 2003. The operator, who leased the building, still lives in the neighborhood. A sign on the building says, "Space Available / ABC Realty Mgmt / call 555-1234."

> ***Note to Workshop Facilitator:*** *You may wish to extend this activity into a roleplay by playing the role of the building owner or dry cleaner and let the participants interview you.*

Questions for Group Discussion:

1. Compose a list of people that you would interview as part of the Site Assessment.

2. What questions would you ask the dry cleaner / business owner?

3. What questions would you ask the building owner, if he or she is available?

4. For each person identified in # 1 above, what other questions would you ask?

Exercise:
Review of an Example Phase I Site Assessment

Instructions:

1. Review the "Typical Report Format for a Phase I Site Assessment" on page 3-17.
2. Read the following example Phase I Site Assessment.
3. Answer the following questions:
    a. Does this Site Assessment appear complete? If no, why not?
    b. Where are the data or information gaps for this site? Could this information be readily obtained?
    c. What else would you want to know before selecting this site for revitalization?
    d. What are the next steps in this process?

Phase I Site Assessment for 123 Brownfields Boulevard

Introduction

Green Environmental Services, Inc. (Green) was retained by the Pleasantville Community Organization (PCO) to conduct a Phase I Site Assessment for the property located at 123 Brownfields Boulevard. The purpose of this Assessment was to complete the due diligence requirements under USEPA's All Appropriate Inquiry Rule, since PCO is considering the purchase of this property as part of a neighborhood revitalization project and wishes to have CERCLA liability protection. The objectives of this Assessment were to evaluate the subject property's environmental conditions and assess the potential liability for any contamination that may be present. The scope of this Assessment was limited to the methodology and requirements of ASTM E 1527-05; no additional tasks were scoped or performed. No deviations from the ASTM methodology were made and no environmental sampling was performed.

Site Description

The subject property is located at 123 Brownfields Boulevard, in Pleasantville, New Jersey, which is Block 66, Lot 42 on the Tax Map. The subject property is 0.75 acres in size. Adjacent properties include an apartment building to the west, a YMCA to the north, and an office building to the east. Across the street from the property is an abandoned building, the ownership and history of which is unknown. It appears that the building was used for a light industry. This section of Pleasantville is known as "Chemical Alley," so it's possible that some

sort of laboratory or chemical processing occurred in that building at some point in time. This section of Pleasantville is largely urban, with a mixture of residences (mostly multi-family and low-income housing), retail/office space, and some light industry.

The subject property mainly contains a parking lot and vacant building. The parking lot, which is covered in asphalt, is in good shape with only minor cracks. The building is a one-story building of block construction with a shingled roof. According to the title search, the property is currently owned by J. Smith of Atlantic City, New Jersey. The previous owners include Mr. Morris Jones from 1982-1993, and Chem-Corp from 1969-1982. Everyone in the Pleasantville community is currently served by public water and sewer; however, approximately 50% of the public water originates from a municipal well located approximately ¼ mile south of the subject property. The approximate ages of the neighboring apartment building and YMCA are 30 years and 25 years, respectively.

Records Review

In addition to the title search referenced above, the following records were obtained and reviewed for the subject property as part of this Phase I Assessment:

- Sanborn Fire Insurance Map
- Aerial Photographs dated 1974 and 1985
- Tax Map for Pleasantville
- US Geological Survey Topographical Map

The Sanborn Map shows the existence of two aboveground storage tanks on the subject property, in the northwest corner of what is now the parking lot. Both aerial photographs show the building and parking lot. In the 1974 map, the parking lot was covered by gravel, with the exception of a rather large hole in the ground near the eastern property line. It is possible that this hole once contained a septic system, underground storage tank, or something else. The Sanborn map did not indicate any subsurface unit in this area of the property.

In addition, Green completed a records search of New Jersey and federal environmental databases through Environmental Data Resources, Inc. The EDR report is contained in the Appendix. The EDR report identified the location of the municipal well and identified the most recent business owner, Stan's Dry Cleaning, as a generator of hazardous waste.

Site Visit / Inspection

Two staff members from Green conducted a visual site inspection at the subject property on July 31, 2006. Access to the site was obtained through ABC Realty Management. The site is currently surrounded by a 6-foot chain link fence with a locked gate. The site inspection consisted of a visual inspection of the lot, an inspection of the exterior of the building (from ground level), and inspection of the interior of the building. Photographs from the site inspection are included in the Appendix. Neighboring properties were only viewed from inside the fence on the subject property.

The parking lot was in good shape, with only minor cracks and staining, probably oil stains from parked vehicles. There were no sewer grates or drains found on the parking lot. However, a fill pipe was found in the corner of the parking lot adjacent to the building. The fill pipe could have been associated with a former underground tank of some sort.

The building exterior is landscaped with bushes and a combination of lawn and mulch. Most of the vegetation was either dead or overgrown. The building exterior showed no sign of obvious structural defects. Much of the exterior paint was chipping; it is not known whether the paint contains lead, but based on the age of the building, it is possible. The windows were boarded with plywood. The roof contained several pipes or chimneys. The roof was shingled with what appears to be asbestos shingles.

The interior of the building still contained the dry cleaning equipment that was presumably used by the most recent tenant. It is evident that the dry cleaning was done on-site. Inside the building were two sealed 55-gallon drums marked “PERC,” which suggests that the drums contained or had contained perchloroethylene, which is a solvent used in the dry cleaning industry. There was no obvious evidence of spills inside the building. The interior fixtures and floors were generally in good condition, with the exception of trash and cigarette butts indicative of trespassers who used the building after it had been vacated.

Interviews

Because the site is currently vacated, Green assumed that the operator of the dry cleaner ("Stan") either died or left town. However, Green did manage to contact ABC Realty Management, who is currently managing the property on behalf of the owner, J. Smith. Green interviewed Mr. Will Perjure, the ABC staff member who handles the subject property, on July 30, 2006 by telephone.

During the interview, Mr. Perjure stated that Stan's Dry Cleaning had operated at that location from approximately 1994 to 2003. ABC has been unable to find a new tenant for the subject property since 2003. To Mr. Perjure's knowledge, the dry cleaning business did very well, but he could not comment on the nature of the dry cleaning operations. When asked about the dead vegetation, Mr. Perjure replied that Stan had been meticulous about the landscaping and greenery around the building, so the vegetation surely must have died after Stan left. Mr. Perjure did not know why the business suddenly ceased operations in 2003, nor did he know the current whereabouts of Stan. Mr. Perjure also added that he had lived in Pleasantville for his entire life, and he recalled a chemical laboratory being at the subject property during the 1970's.

Findings

Based on the records review, site inspection, and interviews, Green finds the following:

- The neighboring properties seem to pose no obvious environmental threat to the subject property at 123 Brownfields Boulevard;
- Although the previous building owners were identified, the use of the building from 1982-1993 is unknown. The reported use of the building (then owned by Chem-Corp) during the 1970's as a chemical laboratory is of some concern;
- The building and parking lot is generally in very good condition, with no obvious structural defects;
- Although no evidence of major spills was found on the property, historical records indicate that the property may have contained underground tanks or other units which may or may not still be present; and,
- Green assumes that the building contains lead paint and asbestos shingles, although this would need to be confirmed with sampling.

Data Gaps

Since Green strictly followed the ASTM methodology for Phase I Assessments, there are no significant data gaps that would affect Green's ability to identify conditions indicative of releases or threatened releases.

Conclusions

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of 123 Brownfields Boulevard, the property. Any exceptions to, or deletions from, this practice are described in this Section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following: there are two drums likely containing perc still on site, which should be removed and disposed in accordance with federal and state regulations.

Appendices (*Sample – not included here*)

Appendix A EDR, Inc. Database Report
Appendix B Site Photographs
Appendix C Aerial Photographs, dated 1974 and 1985
Appendix D USGS Topographical Map
Appendix E Sanborn Fire Insurance Map

Appendix

Guide to Contaminants and Technologies

(Insert document from: U.S. EPA, September 2005, *Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup, Fourth Edition, Appendix A)*

Assistance Module 4:

Moving from Phase I to Phase II Site Assessments and Understanding Risks

Introduction

Assistance Module: "Moving from Phase I to Phase II Site Assessments and Understanding Risks"

Assumptions:

- The targeted site has undergone a Phase I site assessment and the CBO has reviewed this document.
- The CBO understands the implications of the Phase I assessment.
- The CBO will be commissioning a Phase II or working with a group that is commissioning a Phase II on the property.
- The CBO has identified the desired reuse of the property.

Session Objectives:

Through this assistance, the CBO will acquire greater knowledge and ability to:

- Understand the various roles of governmental entities in brownfields redevelopment
- Develop a scope of work to hire an environmental consultant to conduct Phase II environmental investigations
- Read and interpret Phase II reports, and understand their implications for risks, reuse, and need for additional information
- Have an understanding of remedial options available
- Know what questions to ask and where to go for additional information

Assistance Module: "Moving from Phase I to Phase II Site Assessments and Understanding Risks"

Session Description:

The session will consist of:

7. **Understanding a Phase II Environmental Investigation Process**:
   - Do I need a Phase II investigation?
   - What is involved in a Phase II investigation?
   - How do I go about beginning the process?
8. **Interpreting a Phase II Report**:
   - How do I figure out what the implications are for the reuse of the site?
   - How do I communicate risk information to the public?
   - What do I do next?
9. **Moving to remediation:**
   - How do I determine the remedial design?
   - What types of remedial action are available?
   - What maintenance responsibilities continue after the remediation?

Tools, Processes and Exercises:

- Reviewing a Phase I report to determine scope of work for Phase II
- Checklist of items to consider when beginning a Phase II
- Common forms of environmental contamination
- Common methods of data acquisition for remedial design purposes
- Investigative Technologies
- State-specific Program Information and Fact Sheets
- Components of a Quality Assurance Plan, Standard Operating Procedures, and Health and Safety Plan

Phase II Site Assessments

Understanding a Phase II Environmental Investigation Process

Do I need a Phase II Investigation?

If you have completed a Phase I assessment of a brownfield site and identified potential areas of concern, you will need to move to a Phase II investigation to determine whether or not contamination actually exists at that location, and to what extent. The Phase II identifies the contaminants of concern, confirms or denies the existence of contamination at identified areas of concern, and identifies potential receptors at risk. The Phase II report will also serve as the basis for your remedial design, and as such determines the success of the remediation. It will establish the level of remediation needed, and defines the subsurface conditions (geology, hydrogeology, soil types) which may be important information to have when developing a remediation design (depending upon the type of remediation required).

What is involved in a Phase II investigation?

A Phase II Environmental Investigation builds on the Areas of Concern identified during Phase I. This is an intrusive investigation, meaning that soil samples will be taken. In addition, groundwater samples may be required, an analysis of the subsurface of the site will most likely be included, and some test pits may be warranted. The purpose of this is to determine the nature and extent of contamination, and whether remediation will be required.

The Phase II component may not be the final component required prior to remediation. Often you will discover that plumes exist, or groundwater impacts exist, and additional investigation is necessary before you have enough information to design your remediation. If a contaminant plume is identified, additional samples will be required to delineate the impacted area; to determine the physical extent of the contamination both vertically and horizontally.

Remediation will be required if the known or suspected impacts to the environmental are above regulatory levels. These levels may vary depending upon the planned redevelopment of the site.

How do I go about beginning the process?

Overview of the Phase II Process

Because the Phase II builds upon information gathered during the Phase I process, the scope of work is developed directly from the Phase I report. Each identified area of concern (AOC), (for example, fill material, floor drains, potential or identified tanks, areas of distressed vegetation, areas where specific industrial processes occurred, etc.) must be further examined through soil samples. A determination must be made as to what contaminants to test for, how many samples should be taken, and where the

samples should be taken from (both depth and horizontal locations.) These decisions will be based upon the suspected contaminants derived from the industrial process that was believed to have taken place at the AOC.

A determination must be made as far as how to delineate impacts at this stage. Several options, or combinations of options are available.

1. Directly sample areas of concern to confirm / deny presence of contamination. This can save money as any AOCs which are not contaminated can be eliminated from further investigation, however, any areas where contaminated is found will have to be further delineated in a second mobilization. For sites where extensive sampling is required, it may make sense to initially sample AOCs, and request expedited turnaround from the laboratory so that contaminants may be confirmed while equipment and personnel are still out in the field. This allows them to begin to delineate the areas without the need for additional mobilizations.

2. Sample AOCs as well as step out areas to provide initial information on extent of plume. An initial sample can be taken directly from the area of concern. If there are obvious visual or olfactory impacts, it probably makes sense to step out a foot in each compass direction to visually evaluate the soil. If this soil appears to be contaminated, instead of sending it to the laboratory, the field personnel should step out another foot and visually evaluate the samples, continuing the process until it is expected that clean soil has been reached. At that point, the samples should be sent to the laboratory. If these come back below standards, the plume has been delineated.

3. Sample AOCs and use field methods to step out and attempt to delineate the plume. This method is similar as that described above, except that in addition to visual and olfactory clues, various field testing procedures can be employed to provide a more accurate determination of the existence of contamination. Field methods have an associated expense, but provide immediate data and are less expensive than laboratory analysis. Different field methods are available for different contaminants, and they vary in their reliability. In addition, some field personnel are more experienced in their use than others; these methods are more prone to operator error. In addition, generally states won't accept field methods as proof that an area is clean, so once the field methods indicate that clean soil has been encountered, these samples will need to be analyzed in a laboratory.

Regardless of the method employed, there is a chance that the plumes will not be fully delineated, and an expanded site investigation will be required. In addition, if samples show that an impact to groundwater is expected, groundwater sampling will have to be conducted as an additional phase of investigation.

The regulatory standard you compare your results against depends upon the program your site is in and the proposed reuse. Often states differentiate between residential and non-residential reuse, and have higher standards when a site is planned for residential reuse. In addition, some

states have an impact to groundwater standard. If concentrations exceeding this standard exist within a certain distance of the water table, groundwater sampling will be required.

Your state will have regulations promulgated as a part of their voluntary cleanup program. It is necessary to follow these protocols in order to obtain a release from liability, a no further action letter and covenant not to sue, from the state. This is typically what financial institutions will require for funding purposes.

In Pennsylvania, Act 2 provides releases from state liability for owners or developers of a site that has been remediated according to the standards and procedures in the Act. Act 3 extends liability protection to financiers, such as economic development agencies, lenders, and fiduciaries. These provisions are intended to reduce the liability concerns that may inhibit involvement with contaminated or abandoned sites.

Writing the Scope of Work

Understanding the process described briefly above is key to developing a successful scope of work. The first step in actually laying out your scope is planning. This process ensures that most resource effective means are used to achieve goals; i.e. what sampling protocol is most appropriate to your site within your timeframe, and for the reuse you desire. This process forces stakeholders to translate project goals into realistic technical objectives, and identifies the decisions needed to achieve project goals and the strategies to be used to manage decision uncertainty.

In developing the workplan, certain elements should be included. These are:

- Identification of the field team
- Description of the initial sampling strategies and rationale (Sampling Plan)
- Enumerate decision rules and decision logic
- Communications plan
- Description of the sample collection and analysis technologies
- Quality Assurance Plan (QAP)
- Standard Operating Procedures (SOPs)
- Health and Safety Plan (HASP)

The sampling plan must lay out, for each area to be investigated, the equipment to be used, laboratory analysis to be completed, disposal methods, depth assumptions, turn-around-times for laboratory analysis, suspected constituents/problems, and all assumptions. The sampling plan can include the following issues:

- Surface and subsurface soil sampling and analysis
- Groundwater sampling and analysis
- Surface water sampling and analysis
- Waste sampling and analysis – piles, pits, ponds, lagoons, landfills, building components
- Underground storage tank testing
- Geophysical investigation

- Air quality studies
- Other: asbestos, radon, PCBs, pesticides

Prior to issuing the scope of work to potential consultants, site access should be obtained. Phase II work can not be conducted unless the owner has given express permission for intrusive environmental investigation on their property. The agreement should include the number of days notice required prior to site activities, the timeline for the activity, the condition in which the site must be left, and a provision that the owner will cooperate by removing equipment that is hampering the investigation.

Field and Laboratory work

Once the scope of work has been developed and a consultant has been selected, they will mobilize on site. This involves bringing equipment and personnel onto the site, and for more complex investigation may include the provision of an office trailer, a construction entrance, site security, and running electrical. Field communication procedures should be well established so that any problems or questions can be quickly resolved. Sample management and field quality control is critical to a successful site investigation, and field logs, boring logs, and sample data forms should be meticulously prepared. Samples should be stored for transportation in coolers kept at a constant temperature, and appropriate quality control measures such as test blanks and duplicate samples should be employed.

Interpreting a Phase II Report

How do I figure out what the implications are for the reuse of the site?

Once the Phase II has been completed, the process of interpreting the data generated begins. This may be a complex process involving experts in the field of regulatory compliance, public health, risk assessment, finance, environmental remediation, site development, and legal affairs. There is no standard protocol to follow that will indicate that the site is or is not suitable for development. Decisions to purchase or not purchase a property or to begin cleanup and redevelopment efforts will be made based on the impact of the parties involved. Some of the factors to consider before taking the next step are:

- How much contamination is present?
- Is the contamination manageable, i.e., will it naturally attenuate itself over time, will it migrate off the site with groundwater and impact other sites?
- Is the cost to remediate greater than the value of the property?
- Will purchase of the property open the new owner to environmental liability for the cleanup of the site?
- Will the return on the investment outweigh the cost to clean and redevelop the property?
- Will the time required to clean the site cause unacceptable delays in the redevelopment process?

When reviewing a Phase II report, it is important to keep in mind the eventual reuse of the site and the standard by which contaminants will be measured against. Each area of concern should have been thoroughly evaluated, and a recommendation for further action should be included. If no contamination is found, this recommendation will be for no further action. If contamination is found, the recommendation may be for further testing or some form of remediation.

If contamination exists above the standard, the cost of remediation and the risk posed to the public will vary significantly based on the contaminant, its levels, the type of remediation recommended, and the size of the contamination plume. If the recommended remediation is removal to bring a site in compliance with background standards, and the plume is significantly large, the clean up costs will be extensive. You may want to consider an alternate reuse which allows for a higher level of contamination to be left in place, or an alternate remedial action.

If the recommendation is to leave the contamination in place, using an engineered or institutional control, the cleanup will be less costly and faster than other remedial actions. A deed restriction is an institutional control which runs with the land, and prohibits certain reuses. Permeable or impermeable caps and fences are all forms of engineering controls. These are designed to prevent contact with the contamination. Caps can include building foundations and parking lots. Community organizations can play a particularly important role in ensuring that institutional and engineering

controls are maintained. As you are present in the community, you can report violations of deed restrictions or breaches of the cap (cracks in the parking lot or excavations at the site for landscaping or other purposes).

How do I communicate risk information to the public?

Too frequently, because environmental risks are not well understood by the public, the information that contamination exists on a site may cause fear and panic. This can lead to delays and expensive redesign of remedial action, and occasionally will make the project too costly and time consuming. The end result is that the blighted brownfield remains a blighted brownfield, and the contamination remains in place. Much better is the upfront communication of all the known information about a site. This should include the proposed reuse, the information known about the contamination on the site, and the process to be followed to address that contamination. Contacts should be provided, as should a designated point of contact for the community to call with concerns.

What do I do next?

The Phase II report must be submitted to your state contact. In Pennsylvania, a Notice of Intent to Remediate (NIR) must also be submitted, and public notification of the NIR and the report must be conducted. A decision must be made as to whether more investigation is necessary, or whether you can move directly to remedial design.

Moving to Remediation

How do I determine the remedial design?

The Remedial Design lays out how each AOC will be addressed. It is based on the contaminant, their levels, the location, and the end use. The design will take the following factors into consideration:

1. Amount and time since release
2. Depth to groundwater
3. Proximity to surface water
4. Soil formation
5. Site stratography
6. Interfering structures
7. Local demographics
8. Potential air releases
9. Vapor pressure
10. Water solubility
11. Density
12. Viscosity

The most typical remediation techniques employed on simple brownfield cleanups involve the removal of drums, USTs, and ASTs; cleaning and sealing of floor drains (unless they drain to the sanitary sewer); hot spot contamination removal; and the capping and deed restriction of low levels of contamination left on site. If groundwater contamination is present, typically the source material will be removed, and either a pump and treat or a restriction on drinking wells in the aquifer will be put in place, followed by regular monitoring.

What types of remedial action are available?

Many different types of Remedial Action are available. They are not all appropriate under all conditions, and vary widely in their cost, the time it takes to implement, and their effectiveness. Determination of which remedial actions to employ should be done with the consultation of an environmental professional and with the assistance of the State regulatory agency. General categories of remediation techniques are:

1. Containment – Contamination is contained to eliminate exposure pathways (lead paint, asbestos, etc).
2. Source Control (Institutional controls, engineering controls) – exposure is prevented through the use of deed restrictions, fences, or caps.
3. Removal – Contamination is excavated and disposed of in a landfill.
4. Treatment (in-situ, ex-situ) – contaminated media is treated in place (in-situ) with bioremediation, phytoremediation, soil vapor extraction, etc., or removed and treated off site (incineration, immobilization, etc.) for disposal or replacement on site.
5. Pump and treat – Contaminated groundwater is pumped out, treated and returned to the aquifer upstream of the original location.

6. Site monitoring – regular testing to ensure that contamination is naturally attenuating at an acceptable rate.

What maintenance responsibilities continue after the remediation?

If a brownfield site is cleaned to unrestricted use standards, the only ongoing requirements are those to which any facility would be subject; the responsible use of hazardous substances, general good housekeeping procedures, and compliance with environmental laws. However, for those sites where contamination is left in place, ongoing monitoring and maintenance will be required. It is important to keep this in mind with designing the remedial strategy. For situations where ongoing monitoring is unlikely, it may be prudent to clean to unrestricted standards. For situations where ongoing maintenance and monitoring is required, this will vary depending upon the restriction. Continued groundwater sampling may be required, or the regular inspection to ensure a cap has not been breached. When in-situ remediation techniques are employed, the ongoing responsibilities may be much greater, as bioremediation and extraction wells require regular operation, monitoring, and reporting.

The responsibilities of the owner with respect to ongoing environmental work are public information. Community organizations can obtain this information from the State regulatory agency and serve as a watchdog to ensure that these responsibilities are being met and the public health is protected.

Components of a Quality Assurance Plan, Standard Operating Procedures, and Health and Safety Plan

Quality Assurance Plan

- Identify organizational responsibilities
- Discuss sampling rationale and approach
- Define sampling methods
- Define analytical methods
- Identify quality control procedures
- Standard Operating Procedures
- Data management procedures
- Data validation methods
    - sample representativeness
    - interferences
    - method calibrations
    - instrument stability
    - ability of operator
    - adherence to method, SOP
    - Documentation and defensibility
    - defined accuracy and precision

Standard Operating Procedures (SOPs)

- Provides necessary control of data quality
- Uniform methods for method operation
- Identify QA/QC steps
- Identification of method modifications

Health and Safety Plan (HASP)

- Defines protective clothing / gear
- Identifies emergency procedures
- Establishes site safety officer and decision making responsibility
- Discusses hazards of potential contaminants of concern
- Identifies safety monitoring equipment and procedures

Exercises

Exercise*:*

Reviewing a Phase I report to determine scope of work for Phase II:

1. Obtain a Phase I report that was conducted on a site of interest to the CBO.

2. Conduct Exercise – Phase I Environmental Site Assessment:

    1. Identify areas of concern

    2. Determine target standards

    3. Determine action items
        - Site access
        - Develop scope of Work
        - Determine intended reuse
        - Develop community outreach plan

Checklist of Items to Consider when Beginning a Phase II

- Site access
- Areas of concern
    - USTs
    - ASTs
    - Historic Fill
    - Stained soil
    - Distressed vegetation
    - Floor Drains
    - Industrial Operations
    - Outdoor storage areas
    - Stained / cracked concrete
    - Other
- Depth to groundwater
- Existence of sensitive receptors
- Analytical Parameters
- Number of samples
- Location of samples
- Target Attainment Standards (PA DEP)
    - Background
    - Statewide Health
    - Site-Specific
    - Combination
        - Special Industrial Areas

Example: Request for Proposals for a Phase II Investigation Scope of Work

1.0 GENERAL DESCRIPTION

1.1.1 Project Description

General

The City of XXX (City) is issuing this request for proposals (RFP) to perform a Site Investigation (SI) and other related environmental investigation activities on a privately held property which, if acquired by the City, would become part of the Creek Greenway project. These activities are necessary prior to acquisition and redevelopment of this site as parkland. As part of the redevelopment effort, the City wishes to fulfill the New Jersey Department of Environmental Protection (NJDEP) requirements for investigation. The City entered into a Memorandum of Agreement with NJDEP to include this site in the Voluntary Cleanup Program.

A background memorandum was prepared under the US Environmental Protection Agency's (USEPA) RAC II program. Portions of this document are attached, and the full report is available for review at XXX City Hall (See Attachment 1). NJDEP's review of this document indicated the need for additional investigative activities as set forth in Section 2.0 of this RFP. All sampling and report preparation shall be done in accordance with the requirements of the NJDEP Technical Requirements for Site Remediation (7:26E). Ultimately, the City of XXX seeks to receive site-wide no further action letter for the property.

Site Location

The subject site's western perimeter fronts Mulberry Street, while the site's southern perimeter fronts Nottingham Way. The eastern perimeter of the site is situated along the Creek. The site is located at 26 and 32-40 Mulberry Street in the City of XXX. The site is identified on City tax block maps as Block 199A, Lots 1, 3, 4 and part of 2 (See Attachment 2).

Site Description

The site is developed as three separate light industrial buildings, a scrap yard and automobile sales lot. One building serves as an auto repair/storage facility with three separate bays. A second building serves as a used auto parts sales/ storage area with an office area, while another, smaller building is also used for auto repair. There are several open storage areas, a truck scale and an asphalt and concrete parking lot.

Site History

Vehicle repair/maintenance activities and scrap metal storage are performed at the site. Two hydraulic lifts are present at the site, one of which is reportedly out of service. Previous site uses have included: gasoline station, auto repair facility, auto parts storage/sales, used auto/truck sales and storage area for scrap metal recycling. Three gasoline underground storage

tanks (USTs) were reportedly removed from the site prior to 1991. However, no closure documents or post excavation sampling data has been provided by the current owner. Five above ground storage tanks (ASTs) are present and are used at the site. Prior to 1949, a mill race associated with the creek was present along the northeastern border of the site. The mill race is no longer present, indicating that fill has been used to raise the grade of the site in this area.

1.2 Scope of Work

The USEPA background memorandum indicated the presence of several Areas of Concern (AOCs) that require additional investigation. These AOCs include: former USTs, historic fill, general site operations, hydraulic lifts, floor drains and existing ASTs.

In conjunction with the NJDEP Case Manager, a scope of work was devised to investigate these AOCs. In addition, a geophysical survey will be performed at the site to investigate the possible presence of unidentified buried metal material. A baseline ecological evaluation shall also be performed as part of this SI. A contingency groundwater investigation shall also be included in proposals submitted in response to this RFP. Documentation of the SI activities will be provided in a draft and final SI report.

All work performed shall be in accordance with the NJDEP technical requirements. The Consultant shall be responsible for the performance of any required laboratory analysis and associated QA/QC samples. Analysis shall be performed by a New Jersey certified laboratory. The Method Detection Limits (MDLs) employed must meet the NJDEP standards.

The City of XXX reserves the right to award all, part, or none of the activities described in this document.

2.0 TECHNICAL SPECIFICATIONS

This specification covers the technical requirements for the performance of the SI activities and related items. It is not the intent of the specification to outline those technical requirements adequately covered by the referenced standards. The Consultant shall furnish high quality work and materials meeting the requirements of this specification and industry standards.

The Consultant must provide all safety equipment, vehicles, tools, all work and items required for or incidental to the satisfactory completion of all activities associated with performing the SI scope of work.

2.1 TASK 1 Geophysical Evaluation

The site has an extensive history of being used for automotive storage and repair work as well as scrap metal storage. There are no known USTs or

other buried containment vesicles known to be present at the site. In order to investigate the potential for buried containment vesicles or other buried metal material that may have an adverse impact on the site, the Consultant shall conduct a geophysical survey of the open areas of the site, particularly around the site buildings. The Consultant shall employ both electromagnetic and ground penetrating radar methodologies or other such methodologies that will ensure through evaluation of the site.

Upon completion of the survey and evaluation of the data, if it appears that unidentified, substantial buried metal objects are present at the site, the Consultant shall excavate exploratory test pits to further investigate the geophysical anomalies. Locations of the test pits shall be determined in conjunction with the NJDEP and the City of XXX. Upon completion of the test pits, the Consultant shall restore the site to its pre-investigation condition.

2.2 TASK 2 Former USTs Evaluation

Three USTs were reportedly removed from the site. No data has been provided regarding any associated soil or groundwater sampling associated with the tank closures. In order to determine if the former USTs have impacted the site, the Consultant shall conduct a soil investigation in the area of the former USTs. A total of nine soil borings shall be advanced to one foot below the water table. Organic vapor monitoring (OVM) shall be conducted to screen the soil borings during their advancement.

One sample from each boring shall be collected and submitted for laboratory analysis. The sample collected for laboratory analysis shall be biased toward the most contaminated (eliciting the highest OVM response, visually stained, etc.) six inch interval encountered in the soil boring. Soil samples shall be analyzed for Volatile Organic Compounds (VOC) + 10 and lead. Upon completion of the former UST soil sample collection, the Consultant shall restore the site to its pre-investigation condition.

2.3 TASK 3 Hydraulic Lifts Evaluation

Two hydraulic lifts are located inside the main building at the site. One of the lifts is reportedly not used. In order to investigate if the hydraulic lifts have impacted the site, the Consultant shall conduct a soil investigation in the area of the lifts. Four soil borings shall be advanced around each lift. OVM shall be conducted to screen the soil borings during their advancement.

One sample shall be collected from each boring and submitted for laboratory analysis. The sample collected for laboratory analysis shall be biased toward the most contaminated (eliciting the highest OVM response, visually stained, etc.) in the soil boring. Soil samples shall be analyzed for Total Petroleum Hydrocarbons (TPH), PAHs and VOC + 10. Upon completion of the hydraulic lifts soil sample collection, the Consultant shall restore the site to its pre-investigation condition.

2.4 TASK 4 Floor Drain Evaluation

Floor drains were noted to be present in the buildings. According to the current property owner, these drains are not used. In order to determine if previous use of the floor drains has adversely impacted the site, the Consultant shall conduct a floor drain investigation.

The Consultant shall clean the floor drains and properly dispose of the material generated during the cleaning operations. After the drains have been cleaned, the Consultant shall trace all the floor drains to determine all associated discharge points. The results of the drain system tracing shall be depicted on a map included with the SI report. The Consultant shall also inspect the integrity of the floor drains.

If it is determined that the floor drains' integrity has been compromised, the Consultant shall sample the soil underlying the noted breaches. For purposes of this RFP, assume five soil samples will be collected and submitted for laboratory analysis for this purpose. Soil samples shall be analyzed for TPHs, VOC+10, Base Neutral Compounds (B/Ns), PCBs and Priority Pollutant Metals (PPM). In the event that the integrity of the drains has not been compromised, no floor drain sampling will be conducted.

If, after the drainage system discharge points have been mapped, outfalls to the Creek are discovered to be present and linked to the site's floor drain system, the Consultant shall conduct additional sampling. Sediment samples shall be collected from the discharge areas, be they on the creek banks or in the creek bed. For purposes of this RFP, assume four sediment samples will be collected and submitted for laboratory analysis for this purpose. Sediment samples shall be analyzed for TPHs, VOC+10, B/Ns, PCBs and PPM.

Upon completion of the floor drain evaluation, the Consultant shall seal the floor drains so as to prevent any additional use of the floor drain system.

2.5 TASK 5 AST Evaluation

Five ASTs located on the site are reported to contain heating oil, kerosene, used antifreeze, gasoline collected from automobiles and waste oil. These tanks were reported to be in good condition; however, some staining was noted around the ground surface around several of these tanks. In order to investigate if these ASTs have adversely impacted the site, the Consultant shall conduct a soil investigation.

The Consultant shall document the fuel stored in each AST and shall inspect the integrity of the AST containment areas and underlying surface. If it is determined that the integrity of the area has been compromised, the Consultant shall sample the soil underlying the noted breaches or fissures. For purposes of this RFP, assume two soil samples per AST area will be collected and submitted for laboratory analysis for this purpose. Analytical requirements for the soil samples will be based on the contents of the tank, in accordance with Table 2-1 of NJDEP's Technical Requirements for Site

Remediation. In the event that the integrity of the AST storage and containment areas has not been compromised, AST related sampling will not be conducted. Upon completion of any AST soil sampling conducted, the Consultant shall restore the integrity, within reason, of the AST containment systems so as to prevent future impacts to the site.

2.6 TASK 6 Historic Fill Evaluation

The depiction of the former mill race associated with the Creek along the northeastern border of the site indicates the likely presence of historic fill at the site. In order to investigate the presence or absence of historic fill, the Consultant shall conduct a soil investigation to determine if historic fill is present. A total of two soil borings shall be advanced on-site in the area of the former mill race. In addition, soil borings shall be advanced in three other areas of the site not otherwise being investigated to evaluate the presence of historic fill.

Two samples from each boring shall be collected: one from the surface or other potential fill material that is biased toward contamination and one from the native soil immediately underlying the suspected historic fill layer. Soil samples shall be analyzed for TPH, VOC +10, B/N, PCBs and PPM. Upon completion of the historic fill sample collection, the Consultant shall restore the site to its pre-investigation condition.

2.7 TASK 7 General Site Operations Evaluation

The site has an extensive history of being used for automotive storage and repair work as well as scrap metal storage. In order to investigate the impact that site operations may have had outside of the specific AOCs contained in this RFP, the Consultant shall advance five borings: one in the area of the hydraulic bailer, one in the scrap metal storage area, one in the area of the truck scale, one in the drum storage area and one location to be determined in the field. Specific site operation areas are discussed in the USEPA memorandum. The specific locations of the soil borings should be biased toward heavy use areas, stained or obviously contaminated areas and/or areas containing stressed vegetation. OVM shall be conducted to screen the soil borings during their advancement.

One sample shall be collected from each boring and submitted for laboratory analysis. The sample collected for laboratory analysis shall be biased toward the most contaminated (eliciting the highest OVM response, visually stained, etc.) in the soil boring. Soil samples shall be analyzed for TPH, VOC+10, B/Ns, PCBS and PPM. Upon completion of the soil samples collected for the general site operations evaluation, the Consultant shall restore the site to its pre-investigation condition.

In addition, the memorandum discusses a small parts cleaning solvent basin. The NJDEP has requested that additional information be collected regarding the operation and condition of this basin. A storage room was also described

in the memorandum. The NJDEP has requested that this room be inspected and that additional information be provided regarding the room's contents and condition. The Consultant shall collect this additional information and present it, along with any associated recommendations for further investigation, in the SI report.

2.8 TASK 8 Groundwater Evaluation

If substantial soil contamination is determined to be present as a result of the soil sampling conducted for the SI, it is anticipated that the NJDEP will require the performance of a groundwater investigation. In order to determine if site operations have adversely impacted the site's groundwater, the Consultant shall be prepared to conduct a groundwater investigation. For purposes of this RFP, assume that five permanent groundwater monitoring wells will be installed at the site. Monitoring well locations will be determined in consultation with the NJDEP and the City. In the event that the NJDEP does not require a groundwater investigation, this task will not be performed.

The wells shall be constructed of 2-inch diameter Schedule 40 PVC casing and appropriately slotted PVC screen. All wells shall be flush mounted. For cost estimating purposes, assume that the wells will be twenty feet deep. The well screen shall be 10 feet in length. The water table shall be screened across the water table and allow for seasonal groundwater fluctuations.

All wells shall be drilled by hollow stem auger and continuous split spoon sampling methodology. At this time, it is anticipated that the soils will not be grossly contaminated. As such, the drilling cuttings are to be disposed of at the site. Each monitoring well boring shall be lithologically logged. The soil borings shall be subjected to OVM during advancement of the soil borings. A boring log shall be completed for each monitoring well boring. A monitoring well construction diagram shall be completed for each monitoring well.

In addition, Monitoring Well Certification Form A shall be completed and submitted for each monitoring well. All wells shall be surveyed by a New Jersey licensed surveyor. Monitoring Well Certification Form B shall also be completed and submitted for each monitoring well.

The Consultant shall develop the wells in accordance with applicable State requirements and industry standards. Wells shall be developed until water removed from the wells is relatively turbidity-free. Turbidity, flow rate and drawdown shall be determined at regular intervals during development and recorded for future hydrogeologic characterization. All development fluid shall be collected and containerized for off-site disposal. In the event that the groundwater sample data indicates that the groundwater is not significantly contaminated, drummed well fluids shall be discharged at the site upon receipt of analytical data.

Groundwater Sample Collection and Analysis
The Consultant shall collect two rounds of groundwater samples from all five monitoring wells pursuant to the NJDEP Technical Requirements for Site Remediation (N.J.A.C. 7:26E- 6.3b et al). Gauging of site monitoring wells will be conducted prior to well purging activities. The purpose of collecting the groundwater samples is to evaluate the impact to groundwater from soil contamination that is determined to be present at the site. Methodology employed to purge and sample the monitoring wells shall be done in such a manner as to minimize disturbance to the well. Low flow purging methodology shall be utilized to purge the wells prior to sample collection. Sample collection methodology shall include bailer sampling techniques. Groundwater elevation measurements, groundwater parameter measurements during purging, and measurement for free product shall be conducted in accordance with NJDEP protocol. All purge water is to be collected and containerized for off-site disposal. In the event that the groundwater sample data indicates that the groundwater is not significantly contaminated, drummed well fluids shall be discharged at the site.

The initial round of groundwater samples is to be collected approximately two weeks after satisfactory completion of well development activities. The second round of groundwater samples are to be collected after City of XXX and NJDEP review the results of the initial groundwater sample data. A monitoring well location map and groundwater data tables shall be submitted to the City of XXX Project Manager upon Consultant's receipt of the laboratory data.

For purposes of this RFP, assume that groundwater samples collected from the monitoring wells will be analyzed for TPH, VO+10, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), Semivolatile Organic Compounds (SVOC+15), PCBs and PPMs.

Well Water Disposal
Should it be deemed necessary, the Consultant shall arrange for the disposal of well water generated during the well development and sampling events upon receipt of analytical data from both rounds of groundwater sampling. Material shall be properly transported and disposed and/or recycled by a licensed disposal facility in accordance with all applicable local, State and Federal regulations. Original documentation of the disposal/recycling shall be provided to the City within two weeks of its removal from the site.

In the event that the groundwater sample data indicates that the groundwater is not significantly contaminated, drummed well fluids shall be discharged at the site. Should this be the case, the Consultant shall be responsible for removal and proper disposal of any drums emptied of their contents at the site.

2.9 TASK 9 Draft and Final Report Preparation

The Consultant shall prepare and submit to the City a Draft and Final SI Report documenting the findings for the site and recommending any necessary additional investigative or remediation activities.

After completion of the soil sampling investigation, the Consultant shall prepare and present to the NJDEP and the City for review and evaluation analytical data summary tables and sample location maps depicting relevant data. This information will be used to determine the need for a groundwater investigation. This data will also be included in the SI report.

The Consultant shall prepare the report in accordance to the requirements set forth in the NJDEP Technical Requirements for Site Remediation. At a minimum, the report shall document the field investigative methodology employed, the resultant data generated, an evaluation of the data, and recommendations for additional investigation or for remediation activities. A baseline ecological evaluation shall also be conducted and included in the report. Supporting documentation shall also be contained in the report, including: geophysical survey data and report; floor drain system map; soil boring logs; monitoring well construction diagrams; disposal documentation; potentiometric surface maps; groundwater contour maps; and presentation of all resultant analytical data.

The Consultant shall submit two copies of the Draft Report to the City. Upon review and approval of the Draft Report by the City of XXX, the Consultant shall amend the Draft Report accordingly and submit to the City of XXX four copies of the Final Report. The Final Report shall also include a disk containing the analytical data. All analytical data must be submitted in electronic format pursuant to N.J.A.C. 7:26E 3.13 ET. Al.

As part of this task, the Consultant shall also include costs associated with attending at least three project meetings. It is anticipated that two meetings shall be held with the NJDEP and that one meeting shall be held with the current property owner to discuss the data collected during the SI.

3.0 SPECIAL CONDITIONS

3.1 Work Provided By Consultant

General

The Consultant shall provide quality work and materials meeting the requirements of the specifications. The work shall include providing supervision, labor, materials and equipment necessary to provide the services described in the Technical Specifications, Section 2.0. All work shall be performed in accordance with the NJDEP Technical Requirements for Site Remediation.

Permits

All on-site activities and final products by the Consultant shall meet all applicable local, State and Federal regulations. The Consultant shall be responsible for obtaining, completing and submitting all required manifests, permits and/or other required documents in a timely manner. This includes providing utility clearance for the project.

The Consultant must be or must use a properly licensed waste transporter and disposal facility currently in good standing in the State of New Jersey and must possess all the necessary Federal and State permits and insurance for shipping and disposal of the material at properly permitted and approved disposal and/or recycling facilities.

Health & Safety

The Consultant is responsible for implementation of all health and safety measures required by law that need to be taken to complete the required services. The City of XXX assumes no responsibility for the health and safety of Consultant employees or other non-City employees.

All on-site personnel shall meet the requirements of Occupational Safety and Health Administration (OSHA) hazardous Waste Operations and Emergency Response Standard 1910.120 (e) – Training and 29 CFR 1910.120 (f) – Medical Surveillance. All requirements shall be current, including the 8-hour refresher certifications.

Support of Public Relations

The Consultant shall make every effort to maintain good relations with the existing property owner and adjacent property owners and residents. All

Consultant field personnel employed on-site shall be made thoroughly cognizant of the importance of this aspect of the work.

All field activities shall be conducted in an efficient and professional manner, with the minimum practical damage to the site environment. Any disruption to the existing business activities at the site shall be kept to a minimum. Any disruption of the existing site conditions must be returned to pre-investigation condition immediately preceding sampling activities. Thus, fence, tree and brush removal and similar impacts that are unable to be returned to original site condition upon the existing site environment shall be limited to only that which is approved by the City of XXX and the current property owner.

Security

The Consultant shall be responsible for securing his equipment and materials at the site. The City of XXX assumes no responsibility for the safeguarding of the Consultant's equipment.

Site Visit

It is the responsibility of the Consultant to verify all field conditions and to address any discrepancies that may exist. An optional site visit is scheduled for August 11, 2004 at 10:00am. Failure to participate or send a representative does not preclude your ability to submit a response to this RFP. Please contact Leah Yasenchak at (609) 989-4238 to indicate if you will attend.

3.2 Work provided by the City of XXX

Site Access

Right of access to the site shall be arranged by the City of XXX prior to the commencement of the site work. No Consultant personnel are to enter onto any portion of the site without first obtaining clearance from the City.

Quality Control

The City of XXX shall inspect the work in progress, when appropriate, and at completion. Any discrepancies will be noted and submitted to the Consultant.

Utilities and Service

No office trailer, water supply, portable chemical toilets or telephone will be maintained on-site by the City. Should the Consultant desire to have these

utilities and services on-site, it may been done at the Consultant's own expense.

3.3 Project Schedule

All work for this contract shall be completed within 120 calendar days after receipt of notice to proceed, unless amended in writing by mutual agreement of the parties. The technical contact will be Ms. Leah Yasenchak (phone number). All scheduling shall be coordinated with the technical contact, with a minimum of five calendar days notice prior to performance of on-site activities. No activities shall commence without prior approval from the City of XXX.

3.4 Measurement and Payment

The Consultant shall provide invoices for services as they relate to the specifications and shall be reimbursed in accordance with the price form presented in Section 3.7. The basis for measurement and payment of each task is presented below.

TASK 1 Geophysical Evaluation

Payment for performance of the geophysical evaluation shall be made on a lump sum basis and per unit basis as per the technical specifications outlined in Section 2.1 and the price form in Section 3.7. The City of XXX will make payment for this task upon completion of such activities and upon receipt of the geophysical survey data and report and a proper invoice.

Performance of the geophysical evaluation includes all labor, materials, and equipment charges necessary to conduct all activities including performance of the survey, mapping of the results, excavation of exploratory test pits, if deemed necessary, and site restoration.

TASK 2 Former UST Evaluation

Payment for performance of the former UST evaluation shall be made on a lump sum and per unit basis as per the technical specifications outlined in Section 2.2 and the price form in Section 3.7. The City of XXX will make payment for the performance of the sampling and analysis upon completion of field activities and receipt of analytical data summary and a proper invoice.

Performance of the former UST evaluation includes all labor, materials and equipment charges necessary to conduct all soil investigative activities including sample collection, laboratory analysis and site restoration.

TASK 3 Hydraulic Lift Evaluation

Payment for performance of the hydraulic lift evaluation shall be made on a lump sum and per unit basis as per the technical specifications outlined in Section 2.3 and the price form in Section 3.7. The City of XXX will make

payment for the performance of the sampling and analysis upon completion of field activities and receipt of analytical data summary and a proper invoice.

Performance of the hydraulic lift evaluation includes all labor, materials and equipment charges necessary to conduct all soil investigative activities including sample collection, laboratory analysis and site restoration.

TASK 4 Floor Drain Evaluation

Payment for performance of the hydraulic lift evaluation shall be made on a lump sum and per unit basis as per the technical specifications outlined in Section 2.4 and the price form in Section 3.7.

The City of XXX will make payment for the performance of the cleaning, inspection, mapping and sealing of the floor drain system on a lump sum basis. Payment for cleaning, inspection, mapping and sealing of the floor drain system shall be made upon completion of such activities and receipt of the floor drain system map and a proper invoice.

The City of XXX will make payment for the performance of the sampling and analysis upon completion of the field activities and receipt of analytical data summary and a proper invoice.

The City of XXX will make payment for the performance of the transportation and disposal of the floor drain debris on a per ton basis. The actual quantities of the material removed and disposed will be used to calculate the payment amount. Quantities listed in this document are estimates only. Payment for debris transportation and disposal will be made after the work has been completed and upon receipt of the debris disposal documentation and proper invoice.

Performance of the floor drain evaluation includes all labor, materials, and equipment charges necessary to conduct all activities including cleaning, inspection, mapping and sealing; debris transportation and disposal; and sample collection and laboratory analysis.

TASK 5 AST Evaluation

Payment for performance of the AST evaluation shall be made on a lump sum and per unit basis as per the technical specifications outlined in Section 2.5 and the price form in Section 3.7. The City of XXX will make payment for the performance of the sampling and analysis upon completion of field activities and receipt of analytical data summary and a proper invoice.

Performance of the AST evaluation includes all labor, materials and equipment charges necessary to conduct all soil investigative activities including sample collection, laboratory analysis and site restoration.

TASK 6 Historic Fill Evaluation

Payment for performance of the historic fill evaluation shall be made on a lump sum and per unit basis as per the technical specifications outlined in Section 2.6 and the price form in Section 3.7. The City of XXX will make payment for the performance of the sampling and analysis upon completion of field activities and receipt of analytical data summary and a proper invoice.

Performance of the historic fill evaluation includes all labor, materials and equipment charges necessary to conduct all soil investigative activities including sample collection, laboratory analysis and site restoration.

TASK 7 General Site Operations Evaluation

Payment for performance of the general site operations evaluation shall be made on a lump sum and per unit basis as per the technical specifications outlined in Section 2.7 and the price form in Section 3.7. The City of XXX will make payment for the performance of the additional information collection (for the small parts cleaning solvent basin and storage room), the soil sampling and analysis upon completion of field activities and receipt of analytical data summary and a proper invoice.

Performance of the general site operations evaluation includes all labor, materials and equipment charges necessary to conduct all inspection and information collection and all soil investigative activities including sample collection, laboratory analysis and site restoration.

TASK 8 Groundwater Evaluation

Payment for installation and development of the monitoring wells shall be made on a per unit basis per the technical specifications outlined in Section 2.8 and the price form in Section 3.7. Sampling and analysis will be made on a per unit basis. The City of XXX will make payment for the installation and sampling of the five groundwater monitoring wells upon completion of the field activities and receipt of the analytical data summary and a proper invoice.

The City of XXX will make payment for the performance of the transportation and disposal, if deemed necessary, of the purge water generated as a result of development and sampling activities on a per gallon basis. The actual quantities of the material removed and disposed will be used to calculate the payment amount. Quantities listed in this document are estimates only. Payment for water transportation and disposal will be made after the work

has been completed and upon receipt of the debris disposal documentation and proper invoice.

Performance of the monitoring well installation, development, sampling, and analysis includes all labor, materials and equipment charges necessary to conduct these activities including sample collection, laboratory analysis, site restoration and purge water disposal.

TASK 9 Report Preparation.
Payments for preparation of the Draft and Final reports shall be made on a lump sum basis. The City of XXX will make payment for preparation of the reports after the Final Report submission.

Preparation of the Draft and Final reports includes all labor, materials and equipment charges necessary to attend at least three project meetings and to prepare the documents in accordance with NJDEP Technical Requirements for Site Remediation including evaluation and interpretation of the data, preparation of the groundwater elevation contour maps, submittal of the electronic data and any associated photocopying or reproduction costs.

3.5 Proposal Requirements

Methodology

The City of XXX reserves the right to consider the Consultant's methodology in awarding the contract. As part of the proposal, the Consultant shall submit a written plan briefly describing how the work will be completed. At a minimum, this plan shall include the work methodology synopsis and a work schedule.

Documentation of Experience

The City of XXX reserves the right to consider the Consultant's experience in awarding the contract. The Consultant shall submit a synopsis of work experience documenting completion of work in the City of XXX and work of similar character to that required in the specifications.

Documentation of Training

The offeror shall certify that work site personnel meet the requirements of Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard 1910.120 (e) – Training and 29 CFR 1910.120 (f) – Medical Surveillance.

Documentation of Equipment Availability

The Consultant shall certify that he owns or has commitments for the use of all equipment, materials, and manpower necessary to complete the work within the time specified.

References

As part of the proposal, the Consultant shall submit a list of four references that relate to successful completion of work of similar character to that required in the specification. The references shall include at a minimum, the project name, date completed, contact name and telephone number.

3.6 Submittals and Deliverables

Submittals	Due
1. Methodology Plan	With Proposal
2. Documentation of Experience	With Proposal
3. Documentation of Training	With Proposal
4. Completed Price Form	With Proposal
5. References	With Proposal
6. Documentation of Equipment Availability	With Proposal
7. Disposal Documentation	Within two weeks of removal of any item or material from the site
8. Analytical Data Summary and Maps	Within one month of receipt of soil analytical data
9. Draft SI Report	Within one month after completion of second round of groundwater sampling
10. Final SI Report	Within 14 days after receipt of comments
11. Invoices for Payment	At the completion of the specified work

3.7 Price Form

The City of XXX

Property
Site Investigation

	Investigation Task	Est. Quant.	Fixed Unit Price	Total Estimated Price
1	Geophysical Evaluation			
	a. Performance of Geophysical Survey	1	lump	sum
	b. Excavation of Contingency Test Pits	2	$____/day	
2	Former UST Evaluation			
	a. Collection of Samples	1	lump	sum
	b. Sample Analysis			
	VOC + 10	9	$____/sample	
	Lead	9	$____/sample	
3	Hydraulic Lift Evaluation			
	a. Collection of Samples	1	lump	sum
	b. Sample Analysis			
	TPH	8	$____/sample	
	PAHs	8	$____/sample	
	VOC + 10	8	$____/sample	
4	Floor Drain Evaluation			
	a. Cleaning of Drains	1	lump	sum

b. Mapping of Drainage System	1	lump	sum	_____
c. Sealing of Drainage System	1	lump	sum	_____
d. Collection of Samples (soil and sediment)	1	lump	sum	_____
e. Sample Analysis (soil and sediment)				
TPH	9	$___/sample		_____
VOC + 10	9	$___/sample		_____
B/Ns	9	$___/sample		_____
PCBs	9	$___/sample		_____
PPM	9	$___/sample		_____
f. Loading, Transportation and Disposal of Contaminated Floor Drain Debris	10	$____/ton		_____

5 AST Evaluation

a. Collection of Samples	1	lump	sum	_____
b. Sample Analysis				
VOC + 10	6	$____/sample		_____
Lead	2	$____/sample		_____
TPH	4	$____/sample		_____
Napthalenes	2	$____/sample		_____
B/Ns	1	$____/sample		_____
PCBs	1	$____/sample		_____
PPM	1	$____/sample		_____

6 Historic Fill Evaluation

	a. Collection of Samples	1	lump	sum
	b. Sample Analysis			
	VOC + 10	10	$____/sample	
	TPH	10	$____/sample	
	B/Ns	10	$____/sample	
	PCBs	10	$____/sample	
	PPM	10	$____/sample	
7	General Site Operations Evaluation			
	a. Collection of Samples	1	lump	sum
	b. Sample Analysis			
	VOC + 10	5	$____/sample	
	TPH	5	$____/sample	
	B/Ns	5	$____/sample	
	PCBs	5	$____/sample	
	PPM	5	$____/sample	
8	Groundwater Evaluation			
	a. Monitoring Well Installation / Development	5	$____/well	
	b. Sample Collection	2	$____/event	
	c. Sample Analysis (two events)			
	TPH	10	$____/sample	
	VOC + 10	10	$____/sample	
	TBA	10	$____/sample	

	MTBE	10	$____/sample	_____
	SVOC+ 15	10	$____/sample	_____
	PCBs	10	$____/sample	_____
	PPM	10	$____/sample	_____
	d. Well Water Disposal	150	$____/gallon	_____
9	Draft and Final Remedial Action Report	1	lump sum	_____

Grand Total: _____

NOTE:

A. For those items with fixed unit prices, actual quantities of the items will be used to calculate the payment amount. Quantities listed in this document are estimates only.

B. In the event that a math error is determined to exist on the Price Form, the City of XXX reserves the right to resolve the discrepancy for the contractual price.

Offeror: _____

Date: _____

Technology and Contaminant Tables

Common Forms of Environmental Contamination

Form	Types
Soil	Surface – metals, pesticides, PAHs, PCBs Subsurface: VOCs, DNAPLs
Groundwater	Dissolved VOCs, metals, DNAPLs
Residual Project / Free Product in Groundwater	Floating (LNAPL, e.g. gasoline) Submerged (DNAPL, e.g. TCE)
Surface Water	Dissolved VOCs, metals in water, PCBs, PAHs, metals accumulate in sediment
Residual Waste	Drums, sludges, tanks, paint
Building and Facilities	Asbestos insulation, floor stains, transformers, spills, floor drains Lead paint

Common Methods of Data Acquisition for Remedial Design Purposes

Category	Commonly used methods	Advantages / disadvantages
Geophysics (Indirect data acquisition methods)	Electromagnetics	Good for delineation of high conductivity plumes
	Resistivity	Useful in locating fractures
	Seismic	Limited use in shallow studies
	Ground penetrating radar	Useful in very shallow soil studies
Drilling	Augering	Poor stratisgraphic data
	Augering with split-spoon sampling	Good soil samples
	Air/water rotary	Rock sample information
	Mud rotary	Fills fractures – require intensive well development
	Coring	Complete details on bedrock
	Jetting/driving	No subsurface data
Groundwater sampling	Bailer	Allows escape of volatiles (operator dependent)
	Centrifugal pump	Can produce turbid samples increasing chance of unrepresentative contamination
	Peristaltic / bladder pumps	Gives more representative samples
Soil Sampling	Soil Boring	Restricted to shallow depths
Aquifer tests	Pump test	Samples a large aquifer section
	Slug test	Does not require disposal of liquids

Investigative Technologies

Technology *(media)*	Description	Contaminant
Ground penetrating radar (GPR) *(Buried objects)*	GPR is a technology that emits pulses of electromagnetic energy into the ground to measure its reflection and refraction by subsurface layers and other features, such as buried objects.	Helpful in locating USTs, utilities, backfilled areas, determining geologic and hydrogeologic conditions, and occasionally delineating floating product.
Electromagnetic (EM) Induction *(Buried objects)*	EM induction is a geophysical technology used to induce a magnetic field beneath the earth's surface, which in turn causes a secondary magnetic field to form around nearby objects that have conductive properties, such as ferrous and nonferrous metals. The secondary magnetic field is then used to detect and measure buried debris.	Useful in locating buried objects (metal and non-metal), obtaining geologic and hydrogeologic information, and, on rare occasions, delineate residual and floating product.
Infrared Monitor (IR) *(Buried objects)*	An infrared monitor is a device used to monitor the heat signature of an object and thereby detect buried objects in soil.	Used to search for underground storage tanks, trace piping runs, or identify utilities prior to digging.
Seismic Reflection and Refraction *(Buried objects, Geophysical Profiles)*	Seismic reflection and refraction is a technology used to examine the geophysical features of soil and bedrock, including geophysical profiles as well as debris, buried channels, and other features.	Used to determine depth and thickness of feologic strata, determine depth to groundwater, estimate soil and rock composition, and help resolve fracture location and orientation.
Direct push sampling *(Geophysical Profiles, Soil Sampling, groundwater)*	Technique in which a sampling tube is hydraulically pushed or driven into the subsurface and collects material as it advances. The sampling tubes are usually 2 or 4 feet in length and can provide a continuous sample of the subsurface material.	This technique can be used when sampling for any constituent (VOCs, SVOCs, PCBs, PAHs, etc)
Flame Ionization Detector (FID) *(Soil Screening)*	Measures the change of signal as analytes are ionized by a hydrogen-air flame. A FID can	There is not a direct relationship between the contaminant levels identified

	be used alone to give a total reading of ionized contaminants in ppm, as a screening tool to give an idea of the extent of contamination.	with a FID and laboratory analysis because an FID does not identify individual contaminants. The FID can detect phenols, phthalates, PAHs, VOCs, and petroleum hydrocarbons; the reading can be for an individual contaminant or a combination. A FID can also be used in comjunction with a gas chromatograph to identify and quantify the individual constituents causing the soil contamination.
Photoionization Detector (PID) *(Soil Screening)*	Measures the change of signal as analytes are ionized by an ultraviolet lamp. It can be used alone to give a general idea of levels of soil contamination, but can not identify the individual constituents that are present.	Can detect VOCs and petroleum hydrocarbons. A PID can also be used in conjunction with a gas chromatograph to identify and quantify the individual constituents causing the soil contamination.
Soil Gas Surveys *(Soil Sampling)*	Soil gas consists of gaseous elements and compounds that occur in small spaces between particles of the earth and soil. Such gases can move through or leave the soil or rock, depending on changes in pressure. During a soil gas survey as small hole (diameter less than 1-inch) is advanced to the desired depth. A small tube from the PID or FID is placed into the hole so the soil gas can travel up the tube to the ionization device. After ionization, the gas enters into a portable gas chromatograph (GC) which identifies and quantifies the individual organic compounds on the basis of molecular weight, characteristic fragmentation patterns, and retention times.	Applicable when the suspected contaminants are VOCs and /or SVOCs.

Immunoassay Test Kits *(Soil Sampling, groundwater)*	Used to measure compound-specific reactions to individual compounds or classes of compounds. The reactions are used to detect and quantify contaminants.	In-field portable test kits using this method are available for benzene, toluene, ethylbenzene, and xylene (BTEX), PCPs, PAHs, pesticides, explosives, and metals. In order to use the method effectively, you must have a good idea of what the contaminant is and where it is.
Colorimetric Kits (*Soil Sampling, groundwater)*	Colorimetric refers to chemical reaction-based indicators that are used to produce compound reactions to individual compounds, or classes of compounds. The reactions, such as visible color changes or other easily noted indications, are used to detect and quantify contaminants.	Used to analyze for organic and explosive contaminants. In order to use the method effectively, you must have a good idea of what the contaminant is and where it is.
Laser induced fluorescence / Cone penetrometry (*Soil Sampling, groundwater)*	Field screening method that couples a fiber optic-based chemical sensor system to a cone penetrometer mounted on a truck.	Most effective with petroleum contamination.
X ray Fluorescence *(Soil Sampling)*	A self-contained, field-portable instrument, consisting of an energy dispersive x-ray source, a detector, and a data processing system.	Detects and quantifies individual metals or groups of metals.
Drilling *(groundwater)*	Typically, a hollow stem auger is used to penetrate the surface and reach the water table, the well is screened and cased, and samples are collected.	Locating a monitoring well must take into consideration the direction of groundwater flow, location of contaminant spills, nature of the contaminant, and subsurface geology including depth to groundwater.

References and State-Specific Fact Sheets

(Insert from websites about state brownfields programs)

References for Additional Information

Brownfields Information

- *Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup* (EPA OSWER, EPA 542-B-97-002)
- *Tool Kit of Information Resources for Brownfields Investigation and Cleanup* (EPA OSWER, EPA 542-B-97-001)
- Standard Guide for Process of Sustainable Brownfields Redevelopment (E 1984-98)
- EPA's Brownfields Program www.epa.gov/brownfields

Investigation Techniques

- *Field analytical and Site Characterization Technologies Summary of Applications* (EPA OSWER, EPA 542-R-97-011)
- *Guide to Site Characteristics for Environmental Purposes With Emphasis on soil, Rock, The Vadose Zone, and Ground Water* (ASTM D 5730)
- *Test Methods for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well* (ASTM D 5730)
- EPA's Technology Innovation Office www.epa.gov/swertio1
- Hazardous Waste Cleanup Information http://clu-in.org

Standard Protocol Information

- Bureau of Waste Management Technical Guidance Manual: http://www.depweb.state.pa.us/landrecwaste/cwp/

Assistance Module 5:

Financing and Insurance Programs for Brownfields Assessment and Cleanup

Introduction

Assistance Module: "Financing and Insurance Programs for Brownfields Assessment and Cleanup"

Assumptions:

- CBO has limited environmental experience or technical skills.
- CBO has identified one or more sites for cleanup and/or reuse, and may or may not own the properties.
- CBO has completed Assistance Modules 3 and 4 which address Phase I and Phase II site assessments.
- CBO is interested in learning how to finance the cost of completing these initial site assessments, as well as the cleanup required to make the property safe for its intended reuse.
- CBO is interested in learning how to protect itself from potentially large cleanup cost overruns and/or long-term environmental liabilities associated with residual site contamination.

Session Objectives:

Through this assistance, the CBO will acquire greater knowledge and ability to:

- Better understand the financial risks of acquiring and redeveloping a possibly contaminated property, and what contractual approaches and grant, loan and insurance products might be used to reduce and/or control costs.
- Better understand site assessment financing options available to government, non-profit and private sector owners and developers.
- Better understand site cleanup financing options available to each of these owners and developers.
- Determine whether cost-cap or environmental liability insurance is appropriate and/or necessary for the redevelopment project being considered.
- Know what questions to ask and where to go for additional information.

Assistance Module: "Financing and Insurance Programs for Brownfields Assessment and Cleanup – Pennsylvania"

Session Description:

The session will consist of:

10. **Discussing the conflicting environmental risk and sales price objectives of the seller and prospective buyer, and the options available to the buyer to reduce and/ or control potential costs and liabilities:**
    a. Seller seeks to maximize sales price and obtain relief from future liability; Buyer wishes to minimize purchase price, maximize resale value and limit liability.
    b. Importance of due diligence, addressing future liability in purchase contract, linking cleanup costs to purchase price and terms, and conducting Phase I & II site assessments.
    c. Exploring alternative ownership, funding and insurance schemes.
11. **Reviewing available site assessment funding sources**:
    - How do they differ for a local government, non-profit or private company?
    - What are the funding eligibility requirements vis-à-vis site ownership or control?
    - How do I apply for such funds?
12. **Reviewing available site remediation funding sources**:
    - How do they differ for a local government, non-profit or private company?
    - What are the funding eligibility requirements vis-à-vis site ownership or control?
    - How do I apply for such funds?
13. **Reviewing cost-cap and pollution liability insurance products:**
    - What are they and how do I know if I need them?
    - What are the cost-benefit tradeoffs?
14. **Reviewing USEPA Cleanup Grant Application requirements:**
    a. What information is needed to complete the application?
    b. What are the minimum Threshold requirements?
    c. What are the key Ranking Criteria elements?

Assistance Module: "Financing and Insurance Programs for Brownfields Assessment and Cleanup – Pennsylvania"

Tools, Processes and Discussion:

Contractual Structure:
- Brief overview of the use of interim buyer, indemnities, representations and warranties, covenants, escrow account, purchase price adjustment and other optional contract structures and provisions (more detailed Assistance Module to be offered separately).

Federal Government:
- Sources of site investigation, remediation and economic redevelopment funding and financial incentives.

State of Pennsylvania:
- Sources of site investigation, remediation and economic redevelopment funding and financial incentives.

Private Insurance:
- Cost-Cap insurance
- Pollution Liability insurance
- Secured Creditor insurance

Discussion:
- Alternative acquisition, cleanup and redevelopment strategies

Optional Contract Structures

Overview of Purchase Structures and Contract Provisions

Background:

As in any real estate transaction, the objectives of the seller and prospective purchaser of a possibly contaminated property are not aligned. The seller may be aware that the property is contaminated, but may not know the full extent or type of contamination (e.g., is groundwater impacted). Nevertheless, his primary objectives are to maximize the sales price, complete the transaction on a timely basis and obtain relief from future environmentally related liabilities.

The prospective buyer is concerned that the contamination may be greater than currently believed and wants to limit his potential liability as the new owner. He is also interested in completing the transaction on a timely basis, minimizing his cleanup and redevelopment costs, and maximizing the property's resale value. Of additional concern is that he may not have sufficient investment capital to fund the purchase, cleanup and redevelopment, especially with the risk that costs could increase significantly.

As outlined in the following sections of this module, a variety of grant, loan and insurance programs are available to reduce these costs and limit future liabilities, but the purchase structure and inclusion of critical contract provisions may be of equal or greater importance to a successful transaction in the long run. They might include the following:

- Requesting the city or county to acquire the property, clean it up and then resell to the non-profit or private firm for redevelopment. This may take advantage of:
  - Experience in real estate and brownfield cleanup activities.
  - Federal and state assessment and cleanup grants only available to government entities.

- Depositing the agreed upon purchase price in an escrow account which would be used to cover all or a portion of the actual cleanup costs. In the event that costs exceed the escrowed monies, the seller receives nothing and the buyer absorbs the added costs.

- Requiring the seller to undertake the Phase I & II site assessments so as to better define the type and level of contamination present.
  - Reduces uncertainty and allows for more informed agreement on purchase price, need for escrow or seller's indemnification against costs being more than an agreed level.
  - May enable seller to provide contractual representations and warranties regarding site conditions.

Financial Resources and Eligibility

Overview of State and Federal Government Funding Sources

Background:

The State of Pennsylvania and the federal government provide a variety of grant, loan and tax incentive programs to cover some or all of the costs of conducting site assessments, developing a remediation plan, cleaning up the contamination to approved state standards and making physical improvements to the site to aid in its redevelopment. The availability of these funds and incentives are generally linked to the type of redevelopment being proposed and owner of the site. In addition, preference or priority of some state funding sources or incentives may be dependent on participation in specific state voluntary cleanup programs.

Information on the major funding sources from the State and federal government agencies will be outlined to include uses, eligibility, dollar maximum and constraints, and a matrix table will be provided to make it easier to determine what programs are available to which organizations and how such funds can be used.

Information about many other public and private funding sources can be accessed from the web sites listed at the end of this section.

Programs:

Federal Government

- EPA Brownfields Assessment Grants
  - Grants to inventory, characterize, assess and conduct planning and community involvement related to brownfield sites.
    - Maximum of $200,000 grant for each of hazardous substances and petroleum product contaminants.
    - Waiver available for up to $350,000 for each under certain conditions.
    - Can be used for a single specific site or community-wide.
  - Eligible entities include state, local and tribal governments and their agencies.
  - Once a year competitive grant application and review process.
  - Funds should be used within 3 years of receipt, quarterly reporting to EPA required.

- EPA Brownfields Cleanup Grants
  - Grants to carry out cleanup of brownfield sites.
    - Maximum of $200,000 grant for each site.
    - No entity can apply for more than three (3) sites.
    - Requires a 20 percent cost share.
  - Eligible entities include state, local and tribal governments and their agencies, and non-profit organizations.
  - Once a year competitive grant application and review process.
  - Funds should be used within 3 years of receipt, quarterly reporting to EPA required.

- EPA Brownfields Cleanup Revolving Loan Fund
  - Grants for the purpose of establishing local revolving loan funds that provide low or no-interest loans to eligible parties to carryout assessment and/or cleanup at brownfield sites within the community.
  - Maximum loan size and other terms are set by the local Revolving Loan Fund.
  - Loan recipients can be private developers, non-profits and others as determined by local Revolving Loan Fund.

- HUD Brownfields Economic Development Initiative (BEDI) and CDBG Section 108 Loan Guarantees
  - Section 108 loan guarantee program provides source of financing for economic development, housing rehabilitation, public facilities, and large-scale physical development projects.

  - Local governments borrowing funds guaranteed by Section 108 must pledge their current and future CDBG allocations to cover the loan amount as security for the loan.
  - An entitlement public entity or state assisted nonentitlement public entity may apply for up to five times the public entity's latest approved CDBG entitlement amount, minus any outstanding Section 108 commitments and/or principal balances of Section 108 loans. Total of $225 million in guarantees available for FY 2006.
  - BEDI grants must be used in conjunction with Section 108 loan guarantee. Total of $10 million available nationally, maximum of $1 million per grant awarded. Minimum ratio of $1 loan guarantee required for each $1 BEDI grant, much higher ratio recommended.

- Brownfields Tax Incentive
  - Deduct all costs of cleanup against federal income in the year costs were incurred, rather than spreading them out over a period of years.
  - Property must be owned by the taxpayer incurring these expenses, and reuse must be for a trade, business or production of income.
  - No dollar maximum
  - Requires Congress to extend legislation. Currently expires December 31, 2007.

- EDA Grants for Public Works and Economic Development Facilities
  - Fund planning, technical assistance and local infrastructure (roads, sewers, water, etc.) needs associated with brownfields redevelopment.
  - Eligible applicants include a State, city, county, or other political subdivision of a State, including a special purpose units engaged in economic or infrastructure development activities, and a private or public nonprofit organization or association acting in cooperation with officials of a political subdivision of a State.
  - Maximum grant not to exceed 50 percent of the project cost, except may receive up to 80 percent based on relative needs as measured by the severity and duration of unemployment and the per capita income level and extent of underemployment in the region.
  - Total $222.7 million awarded for 207 projects between 2001 and 2006. In fiscal year 2006, EDA invested over $37 million in 24 brownfield-related efforts (average $1.6 million).

State-Specific Programs

INSERT INFORMATION

Determining Best Structure and Funding Options:

Factors to consider:

- Proposed land owner during cleanup and redevelopment (government, non-profit, private).
- Ease of acquisition if not currently owned - impacts on time and effort
- Land use considerations and redevelopment potential (attracting investment and support)
- Cost evaluation (acquisition, cleanup and site preparation, construction)
- Adequacy of public infrastructure? (roads, water, sewer)
- Where you are in the process (own land, site assessments completed, remedial plan developed, committed reuse, tenant or buyer)?
- Do you have sufficient investment capital to fund project with combination of grants and loans, or do you need a partner?

Funding Program Eligibility and Uses

Organization	Project Use			
Eligibility	**Acquisition**	**Assessment**	**Clean-up**	**Improvements**
Non-Profit	PEDA Tax-Exempt Bonds (affordable housing)	PA Industrial Sites Reuse Program (if deemed economic development organization) Sub-Grantee - EPA Brownfields Revolving Loan Fund PEDA Tax-Exempt Bonds (affordable housing)	EPA Brownfields Cleanup Grant PA Industrial Sites Reuse Program (if deemed economic development organization) Sub-Grantee - EPA Brownfields Revolving Loan Fund	As partner with Local Government - USEDA Grants for Public Works and Economic Development Facilities PEDA Tax-Exempt Bonds (affordable housing)
Local Government	PA Business in Our Sites Grant & Loan Program PA Infrastructure Development Program PEDA Tax-Exempt Bonds (public uses)	EPA Brownfields Assessment Grant EPA Brownfields Revolving Loan Fund PA Industrial Sites Reuse Program PA Business in Our Sites Grant & Loan Program	EPA Brownfields Cleanup Grant EPA Brownfields Revolving Loan Fund HUD BEDI and CDBG Section 108 programs PA Industrial Sites Reuse Program PA Business in Our	HUD BEDI and CDBG Section 108 programs USEDA Grants for Public Works and Economic Development Facilities PA Business in Our Sites Grant & Loan Program

		PEDA Tax-Exempt Bonds (public uses)	Sites Grant & Loan Program PA Infrastructure Development Program	PA Infrastructure Development Program PEDA Tax-Exempt Bonds (public uses)
Private For-Profit	PA Business in Our Sites - Loan Program Only Via Government Agency - PA Infrastructure Development Program PEDA Tax-Exempt Bonds (energy, manufacturing & transportation uses)	Sub-Grantee - EPA Brownfields Revolving Loan Fund PA Industrial Sites Reuse Program (reuse for industrial purpose) PA Business in Our Sites - Loan Program Only PEDA Tax-Exempt Bonds (energy, manufacturing & transportation uses)	Brownfields Tax Incentive – USEPA Sub-Grantee - EPA Brownfields Revolving Loan Fund Sub-Grantee: HUD BEDI and CDBG Section 108 programs PA Industrial Sites Reuse Program (reuse for industrial purpose) Via Government Agency - PA Infrastructure Development Program PA Business in Our Sites - Loan Program	Brownfields Tax Incentive – USEPA (redevelopment costs associated with cleanup) Sub-Grantee: HUD BEDI and CDBG Section 108 programs Via Government Agency - PA Infrastructure Development Program PA Business in Our Sites - Loan Program (demolition) PEDA Tax-Exempt Bonds (energy, manufacturing & transportation uses)

Sources of Funding and Tax Incentive Information

Federal Government:

EPA Brownfield Assessment Grants
http://www.epa.gov/swerosps/bf/assessment_grants.htm

EPA Brownfield Cleanup Grants
http://www.epa.gov/swerosps/bf/cleanup_grants.htm

EPA Brownfield Cleanup Revolving Loan Fund Grants
http://www.epa.gov/swerosps/bf/rlflst.htm

EPA Brownfields Tax Incentive Program
http://www.epa.gov/brownfields/bftaxinc.htm

HUD Brownfield Economic Development Initiative (BEDI)
http://www.hud.gov/offices/cpd/economicdevelopment/programs/bedi/index.cfm

HUD Section 108 Loan Guarantee Program
http://www.hud.gov/offices/cpd/communitydevelopment/programs/108/index.cfm

EDA Public Works and Economic Development Facilities
http://www.eda.gov/Research/Brownfields.xml

SMARTe Public Financing Database for all Federal Programs
http://www.smarte.org/smarte/resource/sn-sources-money.xml?page=2#

State-Specific Information (INSERT):

Brownfields Insurance

Cost Caps and Pollution Liability

Overview of Environmental Insurance – Needs and Uses

Background:

What is the role of insurance in brownfields transactions?
Insurance can help reduce the risk for many of the key players in a brownfield transaction, thereby facilitating cleanup and redevelopment. For example, insurance can reduce the risk to a property owner who wants to sell a property but is concerned about potential liability for environmental contamination discovered after the sale. Insurance can also help reduce a prospective buyer's risk of potential liability for cleanup or for personal injury and property damage claims. These and other kinds of insurance are increasingly helping to encourage lenders to provide loans for contaminated properties. In addition, insurance can be used to reduce the risk of potential liability of cleanup contractors. The new insurance products vary based on the particular policy and insurer, but the following general types of insurance are most commonly used in brownfield transactions: cleanup cost cap insurance, environmental impairment insurance and secured creditor insurance.

The potential existence of environmental liabilities associated with residual or unknown contaminates on the property, or those which may have moved onto adjoining lands, can delay or prevent the revitalization of a brownfield site. Specialized insurance products can be used as tools to overcome these potential liability problems, as well as help to limit the impact of possible large cost overruns when cleaning up difficult sites.

These products enable the redevelopment to move forward by reducing financial uncertainty through the transfer of those risks to insurers at a price. Insurance products permit economic risks associated with redevelopment to be quantified, thereby making investment decision-making easier for developers and other equity investors. At the same time, insurance provides lenders with a level of certainty that makes it easier for the developer to use debt versus his own capital.

Three broad options for coverage are relevant to owners and developers of brownfield redevelopment sites:

- Cost cap - Protects against cleanup costs exceeding the anticipated cost.

- Pollution liability - Protects the insured against on-site cleanup costs of unknown, pre-existing pollution and current pollution from ongoing operations, and third-party claims arising from pollution conditions.

- Secured lender - Protects a bank or other lender in the event that a borrower defaults on a loan and the default is associated with a pollution condition.

Whereas the grants and loans discussed earlier apply to broad groups of brownfield sites and redevelopment projects, environmental insurance policies are generally tailored to address the specific conditions of each project. In addition, the policy holders can include the responsible party, environmental remediation contractor, buyer, seller and intermediary owners. Most are "claims made" not occurrence based, meaning that claims have to be filed for specific costs or damages during the policy period.

Cost Cap Insurance

Depending on the insurance company or venue cost cap insurance is sometimes referred to as clean-up cost cap or remediation stop-loss insurance. Its purpose is to cover unanticipated increases in the costs of a known cleanup, and most policies have the following characteristics:

- Coverage is limited to four primary triggers:
  - Discovery of unidentified pollutant
  - Additional amounts of contamination found
  - Change in regulatory requirements
  - Remediation plan failure
- Negotiable for periods of 1 to 10 years.
- Minimum $1 million policy and maximum of $25 million.
- Premium of 8-20% of estimated cleanup cost.
- Self-insured retention (SIR) or deductible equal to about 10-30% of policy coverage.
- Requires that cleanup plan be approved by state regulatory agency and by insurance company on large policies.
- Major insurers are AIG Environmental and Zurich Insurance.

Insurance companies have found that it is uneconomical to offer cost cap policies smaller than $1 million, removing this as an option on smaller projects. In addition, the premium of 8-20% of the total estimated cleanup cost (not insurance policy) and average 20% self-insured retention amount tend to make this coverage an expensive investment.

Pollution Liability Insurance

Pollution Liability Insurance is an environmental policy form that is modeled after a standard commercial general liability contract. Its purpose is to protect the named insured against liability risks that arise out of known and unknown pre-existing contaminants, or new conditions outside the scope of the remedial plan. These might include third-party claims for on and off-site

property damage, bodily injury or clean-up costs. Additional coverage can be obtained for natural resource damages, diminution of property values, business interruption, project delay and regulatory re-openers.

Most policies have the following characteristics:

- Negotiable for periods of 1 to 5 years, although 10 yr. and 20 yr. policies have been obtained.
- Minimum $1 million policy and maximum of $100 million (average about $10 million).
- Premium of $10,000 to $300,000.
- Deductible of $10,000 - $100,000 depending on policy amount.
- Requires that Phase I & II environmental site assessments be completed.
- Major insurers are AIG Environmental and Zurich Insurance.

Insurance companies have found that it is uneconomical to offer pollution liability policies smaller than $1 million, removing this as an option on smaller projects.

Secured Lender Protection

In many instances a bank or other lender to a brownfield redevelopment project will require that the property owner/developer purchase an environmental insurance policy that protects it for against all of the same risks covered by its Pollution Liability and Cost Cap policies. The policy becomes effective upon a default in the loan and the lender becomes the indirect or direct owner of the contaminated property, and covers repayment of the loan balance, costs to complete any remaining cleanup, legal defense costs, contract damages, third-party bodily injury and property damage, and business interruption.

Most policies have the following characteristics:

- Negotiable for periods of 1 to 10 years (average 5-10 years).
- Minimum $1 million policy and maximum of $25 million (average about $5-10 million).
- Premium of $25,000 to $150,000 (average about $50,000).
- Deductible of $10,000 - $250,000 depending on policy amount.
- Requires that Phase I & II environmental site assessments be completed, along with fully executed commercial real estate loan documentation.
- Major insurers are AIG Environmental and Zurich Insurance.

Sources of Information on Environmental Insurance

USEPA:

List of Links
http://www.epa.gov/brownfields/insurebf.htm

Environmental Insurance & Risk Management Tools
http://www.epa.gov/brownfields/insurance/online_insurance_021005.pdf

Chart – Environmental Insurance Policy Coverage and Terms
http://www.epa.gov/brownfields/insurance/policy_coverage_chart.pdf

Other Risk Management Tools
http://www.epa.gov/brownfields/insurance/risk_management_tools.pdf

Environmental Insurance Companies:

AIG Environmental – List of Policies
http://www.aigenvironmental.com/environmental/public/envproducts/0,1338,65,00.html

AIG Environmental – Cost Caps
http://www.aigenvironmental.com/environmental/public/envproducts/0,1338,65-13-4214,00.html

AIG Environmental – Pollution Legal Liability
http://www.aigenvironmental.com/environmental/public/envproducts/0,1338,65-13-4182,00.html

AIG Environmental – Pollution Legal Liability/Cost Cap Combined
http://www.aigenvironmental.com/environmental/public/envproducts/0,1338,65-13-4220,00.html

Zurich Insurance – North America
http://www.zurichna.com/environmental_liability_insurance.htm

Zurich Insurance – List of Policies
http://www.zurichna.com/zus/zsource.nsf/results?openform&ProfitCenter=Environmental&Origin=Environmental&ChangeMenu=No

Preparing an EPA Brownfields Cleanup Grant Application

Preparing an EPA Brownfields Cleanup Grant Application

Overview:

The USEPA generally issues a Request for Proposals (RFP)/Notice of Funding Availability (NFA) for its Brownfields Assessment, Cleanup and Revolving Loan Fund programs about mid-October each year, and applications must be submitted by mail, commercial delivery or electronically by early December. Of the three programs, non-profit organizations are only eligible to apply for Brownfield Cleanup Grants. Funding of up to $200,000 is available for each of three specific sites. Electronic copies of the application guidelines and other pertinent information can be obtained from the EPA brownfields web site http://www.epa.gov/swerosps/bf/applicat.htm

Applicants must submit a separate proposal for each grant, and substantially conform to the following outline and content prescribed by EPA:

Narrative Proposal (not to exceed 18 pages):

Cover letter to include the following:

- Name and full address of grant applicant.
- Funding being requested
    - Grant type – cleanup
    - Amount – up to $200,000
    - Type of contamination – hazardous substance or petroleum
- Location (city, county and state) of the brownfields community intended to be served. Include names, addresses and phone/fax numbers of the mayor, county executive and governor.
- Contacts – names, addresses and phone/fax numbers of project director and head of organization responsible for the grant proposal.
- Project period – generally three years for cleanup grant.
- Population – provide a general description of the population of the community and/or jurisdiction being represented.
- Other – indicate if applicant is a federally designated Empowerment Zone/Enterprise community, or a community with an Official recognition (OR) from the Department of Justice for its Weed and Seed strategy.
- Cooperative partners – Names and phone numbers of individuals and organizations that have agreed to participate in the implementation of the project.
- Project description to be clear, concise and specifically address each of the applicable Threshold and Ranking Criteria discussed below.

Threshold Criteria for Cleanup Grants

Proposals for cleanup grant funding will be evaluated against the Threshold and Ranking Criteria outlined below. Threshold Criteria are pass/fail – applicants must meet all of the criteria elements, and only those proposals that meet all of the Threshold Criteria will be evaluated against the Ranking Criteria.

- Applicant Eligibility - Describe how you are an eligible entity for the grant for which you are applying. If you are a non-profit organization, you must provide documentation, as an attachment to this proposal, indicating non-profit status.

  Note: To receive a cleanup grant, the applicant must be the sole owner of the property that is the subject of its cleanup grant proposal by June 30, 2007 (for 2006 applications). An applicant who is not the sole owner of the subject property at time of its grant proposal submission must achieve sole ownership by June 30, 2007, to be eligible for funding. The grantee must maintain such sole ownership until all of the cleanup work funded by the grant has been completed. EPA reserves the right to request documentation of ownership as part of its threshold review of the proposal.

- Letter from State – An applicant who is not a state or tribal environmental authority must obtain and attach a letter from the state acknowledging that the applicant plans to conduct cleanup activities and is planning to apply for federal grant funds. General correspondence with the state is not acceptable.

- Site and Property Ownership Eligibility
  A. *Basic site information* - Basic Site Information. Identify the name and address of the site; current owner of the site; and if you are not the current owner, the date you plan to acquire ownership of the site.
  B. *Status and History of Contamination at the Site* - Identify whether this site is contaminated by petroleum or hazardous substances; its operational history and current uses(s); environmental concerns, if known; and how the site became contaminated and the nature and extent of the contamination.
  C. *Sites Ineligible for Funding* - Affirm that the site is not listed or proposed for listing on the National Priorities List (Superfund sites); not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA; and not subject to the jurisdiction, custody, or control of the United States government.
  D. *Sites Requiring a Property-Specific Determination* - Certain types of sites require a property-specific determination in order

to be eligible for funding. Please refer to Appendix 3, Section 3.4, of the Guidelines to determine whether your site requires a property-specific determination.

E. *Environmental Assessment Required for Cleanup Proposals* - A written Phase I report or a written report prepared in compliance with the All Appropriate Inquiries Final Rule must be completed and a minimum of a Phase II site assessment must be completed or underway prior to proposal submission. Explain the phase of assessment that has been completed to date and identify the date(s) of the assessment(s), including the date the Phase I report was completed and the status of the Phase II or equivalent investigation.

F. *Possible CERCLA Liability* - Affirm that you are not potentially liable for contamination at the site under CERCLA § 107 (e.g., as a current owner or operator of a facility, an owner or operator of a facility at the time of disposal of a hazardous substance, a party that arranged for the treatment or disposal of hazardous substances, or a party that accepted hazardous substances for transport to disposal or treatment facilities at the site) and explain why.

If the site is a petroleum site, please proceed to section XX. If the site is a hazardous substance site, continue responding to the questions in order.

G. *Enforcement Actions* - Identify known ongoing or anticipated environmental enforcement actions related to the brownfield site for which funding is sought. Describe any inquiries or orders from federal, state, or local government entities that the applicant is aware of regarding the responsibility of any party (including the applicant) for the contamination or hazardous waste at the site. The information provided in this section may be verified, and EPA may conduct an independent review of information related to the applicant's responsibility for the contamination or hazardous waste at the site.

H. *Information on Liability and Defenses/Protections*.

a. Information on the Property Acquisition. Describe:

i. How you acquired or will acquire ownership (e.g., by negotiated purchase from a private individual, by purchase or transfer from another governmental unit, by foreclosure of real property taxes, by eminent domain, or other);

ii. The date you acquired or will acquire the property;

iii. The nature of your ownership (fee simple or other);

iv. The name and identity of the party from whom you acquired ownership;

v. All familial, contractual, corporate or financial relationships or affiliations you have or had with all prior owners or operators (or other potentially responsible parties) of the property (including the person or entity from which you acquired the property).

b. Timing of Hazardous Substance Disposal - Identify whether all disposal of hazardous substances at the site occurred before you acquired (or will acquire) the property and whether you caused or contributed to any release of hazardous substances at the site. Affirm that you have not, at any time, arranged for the disposal of hazardous substances at the site or transported hazardous substances to the site.

c. Pre-Purchase Inquiry - Describe any inquiry by you or others into the previous ownership, uses of the property, and environmental conditions conducted prior to taking ownership. Please include in your description:
   i. The types of site assessments performed (e.g., ASTM Phase I or equivalent), the dates of each assessment[2], and the entity for which they were performed (state whether the assessment was performed specifically for you, or if not, the name of the party that had the assessment performed and that party's relationship to you); and
   ii. Who performed the assessments and identify his/her qualifications to perform such work.

d. Post-Acquisition Uses - Describe all uses to which the property has been put since you acquired ownership (or the uses that you anticipate once you acquire the property) through the present, including any uses by persons or entities other than you. Please provide a timeline with the names of all current and prior users during the time of your ownership; the dates of all uses; the details of each use, including the rights or other reason pursuant to which the use was claimed or taken (e.g., lease, license, trespass); and your relationship to the current and prior users.

e. Continuing Obligations - Describe in detail the specific appropriate care that you exercised (or if you've yet to acquire the property, that you will exercise upon

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2 If your Phase I assessment was conducted more than 180 days prior to the date you plan to purchase the property, you will need to update certain aspects of the Phase I in order to take advantage of the bona fide prospective purchaser provision. If this is the case, please affirm that you have or will conduct the appropriate updates within 180 days of purchase.

acquiring the property) with respect to hazardous substances found at the facility by taking reasonable steps to:

i. stop any continuing releases;
ii. prevent any threatened future release;
iii. prevent or limit exposure to any previously released hazardous substance.

Confirm your commitment to:

i. comply with all land use restrictions and institutional controls;
ii. assist and cooperate with those performing the cleanup and to provide access to the property;
iii. comply with all information requests and administrative subpoenas that have or may be issued in connection with the property; and
iv. provide all legally required notices.

l. *Petroleum Sites* (Disregard this question, if you do not have a petroleum site) The Brownfields Law allows certain sites contaminated with petroleum or petroleum product to be eligible for brownfields grant funding. Eligibility will be determined by EPA or the state, as appropriate. Non-Tribal applicants must provide the information requested below to your state, so that the state can make the necessary determinations on petroleum site eligibility. Include any response to your request received from your state regarding site eligibility with this proposal. If you do not receive a written response from your state by the deadline for filing proposals, please indicate this in your proposal cover letter. (Note: You must provide EPA with the date you requested your state to make the petroleum site determinations. EPA will make the petroleum site eligibility determination if a state is unable to do so following a request from an applicant.) Also in your letter to the State, please request that the State provide information regarding whether it applied EPA's guidelines in making the petroleum determination or, if not, what standard it applied.

a. Current and Immediate Past Owners - Identify the current and immediate past owner of the site. For purposes of petroleum eligibility determinations in these Guidelines only, the current owner is the entity that will own the site on June 30, 2007. For cleanup grants, this must be the applicant.
b. Acquisition of Site - Identify when and by what method the current owner acquired the property (e.g., purchase, tax foreclosure, donation, eminent domain).
c. No Responsible Party for the Site - Identify whether the current and immediate past owner (which includes, if applicable, the applicant) (1) dispensed or disposed of

petroleum or petroleum product, or exacerbated the existing petroleum contamination at the site, and (2) took reasonable steps with regard to the contamination at the site.

d. Cleaned Up by a Person Not Potentially Liable - Identify whether you (the applicant) dispensed or disposed of petroleum or petroleum product, or exacerbated the existing petroleum contamination at the site, and whether you took reasonable steps with regard to the contamination at the site.
e. Relatively Low Risk - Identify whether the site is of "relatively low risk" compared to other petroleum or petroleum product-only contaminated sites in the state in which the site is located, including whether the site is receiving or using Leaking Underground Storage Tank (LUST) Trust Fund monies.
f. Judgments, Orders, or Third Party Suits - Provide information that no responsible party (including the applicant) is identified for the site through, either:
    i. A judgment rendered in a court of law or an administrative order that would require any person to assess, investigate, or clean up the site; or
    ii. An enforcement action by federal or state authorities against any party that would require any person to assess, investigate, or clean up the site; or
    iii. A citizen suit, contribution action or other third party claim brought against the current or immediate past owner, that would, if successful, require the assessment, investigation, or cleanup of the site.
    iv. Subject to RCRA. Identify whether the site is subject to any order under section 9003(h) of the Solid Waste Disposal Act.
    v. Financial Viability of Responsible Parties. For any current or immediate past owners identified as responsible for the contamination at the site, provide information regarding whether they have the financial capability to satisfy their obligations under federal or state law to assess, investigate or clean up the site.

Note: If no responsible party is identified above, then the petroleum-contaminated site may be eligible for funding. If a responsible party is identified above, EPA or the state must next determine whether that party is viable. If any such party is determined to be viable,

then the petroleum-contaminated site may not be eligible for funding.

If you are unable to obtain information on any of the above questions, you must include a brief explanation of why the information requested above is not available.

- Cleanup Authority and Oversight Structure - You will be required to comply with all applicable Federal and State laws; and ensure that the cleanup protects human health and the environment.
    A. *Describe how you will oversee the cleanup at the site* - Indicate whether you plan to enroll in a state or tribal response program. If you do not plan to enroll in a state or tribal response program, or an appropriate state or tribal response program is not available, you will be required to consult with EPA to ensure cleanups are protective of human health and the environment. Therefore, if you do not plan to enroll in a state or tribal response program, provide a description of the technical expertise you have to conduct, manage, and oversee the cleanup and/or whether you plan to acquire additional technical expertise. If you do plan to acquire additional technical expertise, discuss how, consistent with the competitive procurement provisions of 40 CFR 31.36 (for eligible government entities) or 40 CFR Part 30 (for nonprofit organizations), you will ensure that this technical expertise is in place prior to beginning cleanup activities.
    B. Cleanup response activities often impact adjacent or neighboring properties. For example, access to neighboring properties may be necessary to conduct the cleanup, perform confirmation sampling, or monitor offsite migration of contamination. If this type of access is needed, provide your plan to acquire access to the relevant property.
- Cost Share - Cleanup grant recipients are required by the Brownfields Law to provide a 20 percent cost share. This cost share is calculated as 20 percent of the total federal cleanup funds awarded. For example, if you are applying for $200,000 of federal cleanup funds, you must provide a cost share of an additional $40,000. The cost share may be in the form of a contribution of money, labor, material, or services from a non-federal source. If the cost share is in the form of a contribution of labor, material, or other services, it must be incurred for an eligible and allowable expense under the grant and not for ineligible expenses, such as administrative costs.
    A. Describe your plans for providing the cost share, including the sources of the funding or services, as required for this cleanup grant. Cleanup grant applicants may petition EPA to waive the cost-share requirement if it would place an undue hardship on

the applicant. EPA will consider hardship waiver requests on a case-by-case basis and will approve such requests on a limited basis. In considering such requests, EPA will look for indicators such as low per-capita income, unemployment rate significantly above national average, or unemployment or economic adjustment problems resulting from severe short-term or long-term changes in economic conditions.

B. If you are requesting a hardship waiver of the cost share, provide an explanation for the basis of your request as part of your proposal. This explanation must be submitted on a separate page, titled "Hardship Waiver Request," and will not count against the proposal page limit.

Where available, applicants must supply data derived from the most recent American Community Survey ("ACS") published by the U.S. Census Bureau. In cases where such data is not available or to supplement their responses, applicants may provide data from other sources (including data available from the Census Bureau and the Bureaus of Economic Analysis, Labor Statistics, Indian Affairs or other federal source). In cases where no federal data is available to supplement their responses, applicants may submit the most recent data available through your State, Tribal or local government.

Ranking Criteria for Cleanup Grants

If all of the Threshold Criteria are met, the EPA will evaluate the applicant's Cleanup Grant proposal using the following criteria. The relative importance of each criteria element in the overall ranking of the proposal is indicated by the maximum number of points that can be earned. A perfect prepared application would total 100 points. Some criteria are much more important than others (i.e., the combination of Community Need and Ongoing Community Involvement – 31 points; Reduction of Threats to Human Health and the Environment - 27 points; and Programmatic Capability – 20 points), but scoring high on all criteria is critical to a successful application.

- Cleanup Grant Budget (a maximum of 10 points may be received)

A. Provide the proposed budget(s) for your proposal, including a detailed description and narrative of each task. Typical tasks might include "Community Involvement," "Site Cleanup," and "Cleanup Planning." The narrative must provide a basis for the tasks.

B. The budget also must reflect your cost share. The budget(s) must show the distribution of funds, including cost estimates for each of the proposed activities.

C. If your proposal is requesting both hazardous substance and petroleum funding, please provide two separate budgets to reflect the amount of hazardous substance and petroleum funding and the tasks associated with the funding.

Sample Format for Budget

Budget Categories	**Project Tasks**				
(programmatic costs only)	[Task 1]	[Task 2]	[Task 3]	[Task 4]	Total
Personnel					
Fringe benefits					
Travel					
Equipment					
Supplies					
Contractual					
Other (specify) _____					
Totals					
Cost Share					

- Community Need (a maximum of 15 points)
  A. Provide a detailed description of the target community that the project(s) will benefit. Include demographic information for the target community and indicators, such as the poverty rate, unemployment rate, special community situations (e.g., population size), or other environmental justice factors that support community need relating directly to this project (e.g., low-income and/or minority communities; sensitive populations, such as children and pregnant women; or communities disproportionately impacted by environmental factors). Identify the source for this information.
  B. Explain how the targeted community will benefit from this grant. If the current proposal targets a community previously targeted by an EPA Brownfields cooperative agreement, please justify the need for additional funding.
  C. Characterize the impact of brownfields on your targeted community (or communities) by describing the extent of brownfields (e.g., size, number, location) and the economic, health, and/or environmental impacts of the brownfields.

- Sustainable Reuse of Brownfields (a maximum of 12 points may be received). To what extent will this grant support the goals listed below:
  A. Prevent pollution and reduce resource consumption through, e.g., brownfields prevention, infrastructure reuse, native

landscaping, innovative stormwater management/reuse, construction debris/fill reuse, local government commitment to achieving green building and/or energy efficiency building standards, and/or others.

B. Promote economic benefits, e.g., an expanded tax base, increased investment, job creation, enhanced property values through adjacent green space creation, and/or others.
C. Promote a vibrant, equitable, and healthy community, through, e.g., smart growth, linked recreational and park areas, affordable housing, and/or others.

- Creation and/or Preservation of Greenspace/Open Space or Nonprofit Purpose (a maximum of 5 points may be received).
  A. Describe the extent to which the grant will facilitate the creation of, preservation of, or addition to a park, greenway, undeveloped property, recreational property, or other property used for nonprofit purposes.
  B. If this grant will result in such creation or addition (e.g., a new or expanded community park), what specific regulations, policies, or programs, are (or will be) in place to provide for long-term management and care?
  C. If this grant will result in such preservation (e.g. preserving outlying greenfields by focusing development on brownfields) what specific regulations, policies, or programs, are (or will be) in place to assure long-term management, care and preservation?

- Pre-Award Community Notification (a maximum of 12 points may be received)
  A. Describe how the targeted community will be notified of your proposed plans should your proposal be selected for funding. If conducted by another entity on behalf of you, the applicant, please demonstrate how you were or will be involved in the community notification (i.e., you attended or will attend the public meeting, you responded or will respond to comments, etc). Describe the means by which you notified or will notify the community of your plans and by what means they provided or may provide comment.
  B. Explain why the notification method proposed above was/is the most appropriate way to reach your target community. Provide any details that justify your notification plans (languages used, type of media used, medium used, etc.).
  C. How long of a comment period did/do you propose (if less than two business weeks please explain why)? What forms of outreach did/will you employ to encourage community comment over this period?
  D. What were/are your plans for addressing comments received?

- Ongoing Community Involvement (a maximum of 16 points may be received). EPA requires early community notification and encourages continuing community involvement.
  A. Discuss your plan for involving the affected community (e.g., neighborhood organizations, citizens' groups, borrowers, redevelopers, and other stakeholders) in cleanup decisions and reuse planning for the site, including making cleanup-related documents available to the public and soliciting public comment on the analysis of cleanup alternatives.
  B. Describe what community involvement activities, if any, have already occurred. Describe your efforts and/or plans to develop partnerships at the local, state, and/or tribal level with other stakeholders to ensure appropriate and sustainable cleanup and redevelopment of brownfields in your targeted community.
  C. Describe your specific plans for communicating the progress of your project to citizens, including plans for communicating in languages indigenous to the community or other efforts to reach the targeted community as well as the broader community.
  D. Provide a list of the community-based organizations involved in this project and a contact person, phone number, and a brief description of the organization's activities and representation (these organizations may include, but are not limited to, local citizen groups, environmental organizations, civic organizations, local business groups and institutions, educational institutions, and local labor organizations). Community-based organizations do not include the local planning department, the local fire department, or the mayor's office.

Note: EPA may conduct reference checks to ensure that organizations identified are supportive and involved with the brownfields project.

- Reduction of Threats to Human Health and the Environment (a maximum of 27 points may be received).

  A. How and to what extent will funds be used to identify and/or reduce threats to human health and the environment within the target area that may be associated with exposure to brownfield site contaminants? If known, describe the proposed end use of the brownfields site and to what extent this proposed end use will factor into cleanup activities, monitoring, and maintenance of engineering controls or institutional controls as part of redevelopment.
  B. To what extent are you working with your local, state, or tribal health agency to ensure protection of public health and the environment during the cleanup and redevelopment process? Include a brief discussion of relevant state/tribal response

program (or "Voluntary Cleanup Program") processes, where applicable. Note: Local governments seeking funds to support health monitoring must provide additional detail on proposed monitoring activities as part of this question.

C. Describe the proposed cleanup plan for the site and the estimated costs to complete the cleanup.

- Leveraging of Additional Resources (a maximum of 10 points may be received for this criterion)
  A. Identify the funds (e.g., general revenues, tax increment financing (TIF), staff time/in-kind) that your agency/organization has committed or will commit to meet cleanup/redevelopment needs not met through this grant, e.g., additional stages of cleanup, infrastructure upgrades, etc.
  B. Demonstrate your ability to leverage funds. Describe all other funding sources (e.g., federal, state, nonprofit, or private) that will be committed or that you are pursuing to fill in any remaining funding gaps to ensure the success of this project.

- Programmatic Capability (a maximum of 20 points)
  A. Demonstrate your ability to manage this grant and successfully perform all phases of work under this grant, and, if applicable, describe the system(s) you have in place to acquire the requisite expertise and resources necessary to successfully perform the grant. If you are, or have been, a recipient of an EPA Brownfields cooperative agreement(s), highlight significant accomplishments generated AND monies leveraged through the use of the funds.
  B. Describe your history of managing federal funds. If applicable, you must identify and provide information regarding the status of any adverse audit findings from an OMB Circular A-133 audit, an audit conducted by a federal, state, tribal, or local government inspector general or similar organization, or audits conducted by the U.S. Government Accountability Office. If applicable, you also must note whether you are, or have previously been, required to comply with special "high risk" terms and conditions under agency regulations implementing OMB Circular A-102. Note: If you have not previously managed federal funds, respond with NA and you will receive a neutral score. Blank responses will receive a zero score for this factor.
  C. If you are, or have been, a recipient of an EPA Brownfields cooperative agreement(s) or other EPA or Federal assistance agreements, provide information regarding your compliance with quarterly progress reports, brownfields reporting measures, annual financial status reporting, and any other reporting

requirements under those agreements. In addition, provide information on your past performance in reporting on whether you were achieving the results under these agreements. Describe how this information demonstrates that you are making satisfactory progress. Note: If you have not previously received any EPA or Federal assistance agreements, respond with NA and you will receive a neutral score for this factor. Blank responses will receive a zero score for this factor.

D. Describe your plans for tracking and measuring progress towards achieving the expected outputs and outcomes, including those identified in Section I.

Other Factors

In addition to considering the evaluation of proposals based on the factors identified above for the type of grant being proposed for, EPA's Selection Official, in making selection recommendations, may consider the following other factors: fair distribution of funds between urban and non-urban areas and among EPA's ten Regions; designation as a federal Empowerment Zone, Enterprise Community, or Renewal Community; whether the proposed project will assist in addressing environmental justice concerns (such as the disproportionate whether the proposed project will assist in addressing disproportionately high and adverse human health or environmental effects on minority populations and low-income populations); compliance with the statutory petroleum funding allocation; the benefits of promoting the long-term availability of funds under the RLF grants; whether the applicant is a federally recognized Indian tribe; or whether the applicant is a community with an Official Recognition (OR) from the Department of Justice for its Weed and Seed strategy.

Review and Selection Process

Proposals received in response to these guidelines will initially be reviewed by the appropriate regional office to determine compliance with the Threshold Eligibility Criteria described in Sections III and V that apply to the grant type being proposed for. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination. Each proposal by grant type, which successfully meets all of the applicable threshold criteria for that grant type, will then be evaluated by national panels chosen to address the range of activities associated with the National Brownfields Program. The evaluation panels, composed of EPA Headquarters and Regional staff and other federal agency representatives, will base their evaluations solely on the applicable ranking criteria described in Section V

that apply to the different grants types and will assign an evaluated point score.

EPA Regions will provide information to the evaluation panels on an applicant's response to the "Programmatic Capability" ranking criterion. This information may take into account the Regional EPA Office's experience, if any, with the applicant's performance on grants managed by the Region. In addition, in evaluating applicants under the programmatic capability criterion, EPA will consider information supplied by the applicant and may consider information from other sources including agency files and prior grantors (e.g., to verify and/or supplement the information provided by the applicant).

Completed evaluations will then be referred to a Selection Official, who is responsible for further consideration of the proposals and final selection of grant recipients. Proposals will be selected for award by this Official based on their evaluated point scores, the availability of funds, and consideration, if any, of the Other Factors. Applicants selected to receive a cleanup grant, which do not have sole ownership of the property at the time of proposal submission, must obtain sole ownership of the property by June 30, 2007 *[2006 applications].* EPA will find proposals from applicants who have not obtained sole ownership of the site that was selected for cleanup grant funding by that date to be ineligible for award.