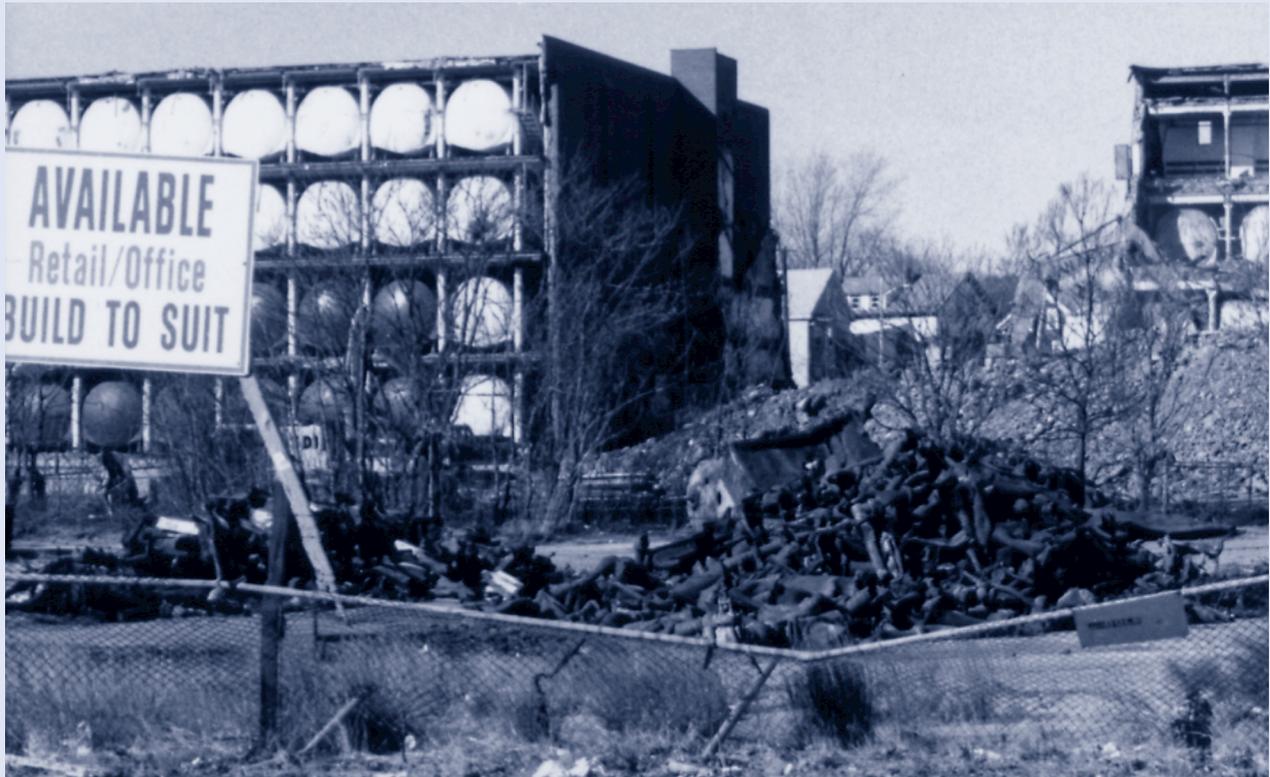


B R O W N F I E L D S :



Turning
bad spaces
into
good ones

How
communities
can get
involved

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What is a Brownfield?

This booklet is about unused or abandoned (*a BAN dund*) buildings and places called **Brownfields**. They are dirty, sometimes dangerous places in neighborhoods. Usually Brownfields are places where old factories or other businesses were. Many times they are very messy and trashy places.

Brownfields can have all kinds of dangers – mess, falling down buildings and even dangerous, **toxic** (*Tok sick*) chemicals. Toxic means these chemicals are dangerous to human health. When a Brownfield is cleaned up, neighborhoods are better places in so many ways.

All around the country Brownfields are being cleaned

up and **redeveloped** (*re da VEL upt*) – turned into better, cleaner places – new businesses, parks and other uses. This booklet will explain what you need to know to get involved and ask good questions about Brownfield **reuse and redevelopment**.

The more you know about a Brownfield site then the more you can take part in planning. For example, let's say a Brownfield site is going to be redeveloped into a school with a community playground. Residents can get involved to help decide:



- **Is this plan for redevelopment and reuse good for the neighborhood?**
- **Is the new place going to be safe for neighborhood people?**



Why can Brownfields be dangerous places?

#1 Dangers you can see

There are two kinds of dangers or **risks** at Brownfield sites – things you can see, and things you can't see. Things you can see, like broken windows and glass, rotted wood floors, rusty nails and pipes, and old barrels, are a problem. All of these things are dangerous. Children playing

at an old Brownfield site have the most risk to get hurt. They can find old underground storage tanks, and they can fall in.

#2 Dangers you can't see

Chemicals can be at a Brownfield and you can't see them. **Some chemicals can be dangerous to human health**. They can be toxic. Toxic chemicals can make people sick if they eat them, breathe them or get them on their skin.

Chemicals

Where did the chemicals come from?

Sometimes when factories or businesses left a place, they left chemicals in pipes, barrels and buried oil tanks. These can leak. When they leak (or *leach*) into the ground, the chemicals can get into the soil and into well water and river water. Scientists test to see if the soil and water are safe.

When is a chemical dangerous?

Think of this: **chemicals are everywhere and in everything we eat and drink.** Our own bodies are made up of chemicals. And most chemicals are natural and safe. **But some chemicals, in the right amounts, can be dangerous.**

Old businesses can leave behind dangerous chemicals. For example, an old dry cleaning business can leave dangerous **VOCs**—volatile (*vo la TILE*) organic compounds—in the ground. VOCs are chemicals that can get into the air that we breathe.

Understanding chemicals		
Chemical Tested	Everyday/Household Use	Business/Industry Use
PesticidesRoach powder Rat poison	. . Farming or chemical company
VOC'sGasoline Dry cleaners Moth balls	. . Oil refinery
Semi-volatilesSoot Incinerators
MetalsBatteries Thermometers	. . Jewelry or plating company

▲ This chart shows some of the kinds of chemicals that may be at a Brownfield site. In the *left* column is the name of the chemical. In the *middle* column you see how we use that chemical everyday, even at home. The *right* column shows what kinds of big businesses use these chemicals. This chart shows that there are many ways to use chemicals.

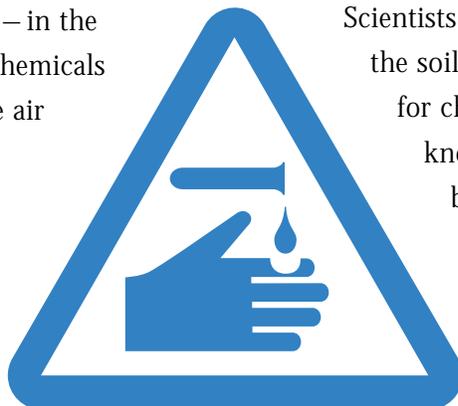
Testing chemical levels—how much do they find?

If chemicals are in everything, how do the experts know what to test for?

Scientists often will test the soil and the water for chemicals. If they know what type of business was

there before, this will help scientists decide what to test for. Some of these tests are **very expensive**. So, they do the basic tests first. They may do more tests after they look at the first results.

To do the tests scientists dig holes, or **test wells**, into the ground and take samples of the water in the ground.



Standards for chemicals: how much is too much?

When scientists test a Brownfield site (the ground or the water) they want to find out **how much** of a chemical there is. The government sets safe amounts or levels for chemicals. The safe level is called a **standard**. If they find a level that is **higher than** the safe standard, then they make plans to do something to keep people safe.

What happens if a test is too high?

If the level is too high, scientists take action in different ways. Depending on the risk, they will do some or all of the following:

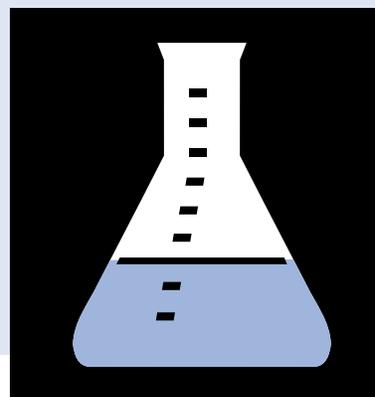
- Remove the contamination
- Cover it up
- Fence in the area
- Plant trees and grass
- Teach people about how to use an area
- Do more tests

Each Brownfield site is different, but the list above will give you a good idea of the kinds of actions that a contaminated site may need.

How to understand standards

Here is an example of a “standard.”

Let's say soil at a Brownfield site was tested for **lead**. The test level was **3,500 ppm** (parts per million). The EPA (Federal Environmental Protection Agency) action level is **400 ppm**. So, the level is **higher than the standard** (3,500 ppm is higher than 400 ppm). This means something needs to be done to be sure people can be safe at or near this Brownfield site.



What is risk?

There is no such thing as living in a world with no risks. Even crossing the street can be risky. The important question is “**What is an acceptable risk?**” “**What is a risk I am willing to take?**”

Sometimes it’s hard to know what is a risk? Who is at risk? For example if children are playing in a crumbling building this can be a **high risk**. Children can fall, get cut or get seriously hurt. Another example is if the air is filled with dust. This may be risky for people with asthma or older people.



Questions to ask about risk

- Is there a risk?
- Who is most at risk?
- What is the acceptable standard for this chemical?
- Is this standard for a normal size man or woman?
- Is this standard for a child?
- When can this chemical make me unhealthy?
- What could happen to me or my children?
- What about pregnant women?
- How would I know if I am sick from this chemical?
- If you say this level is safe here, does that mean this level is safe for every other place in the country?
- How can I protect myself – minimize the risk (keep the risk low)?
- How can I learn more about this risk? Who can I talk to?
- Is there something I can read?



Remember! There is no such thing as living in a world with no risks. The important thing is to understand what the risks are.

Go to the back page of this booklet for a list of agencies and phone numbers you can use.

An example of standards

The safe standard dose of aspirin for the average adult is 2 aspirin every 4 hours. Some adults can take even more than 2 aspirin safely. But if you are a small child, 2 aspirin is way too much. The standard for adults (2 aspirin) is not **the standard** for children.

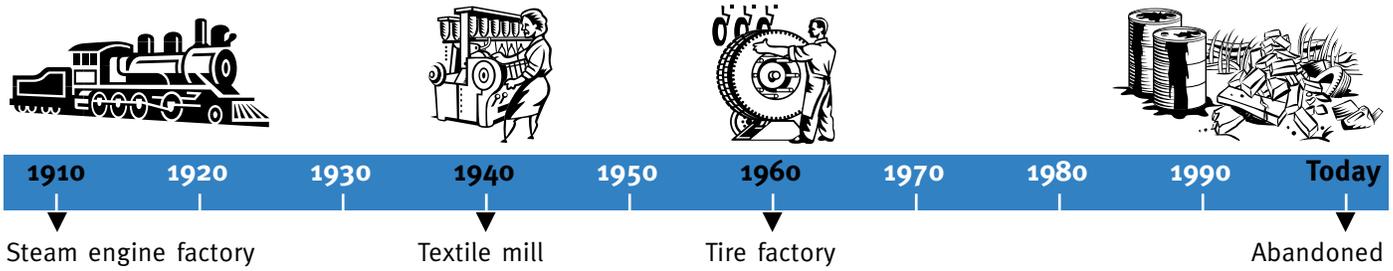
You can get involved

Residents know some important history

The past history of a site is important. Talk to the people

who have lived in the neighborhood for a long time. Maybe you are one of those people! People who worked in the facto-

ries and businesses may know what kinds of chemicals were used. This information will help the planners and scientists.



Brownfields get **redeveloped** into all kinds of different spaces – schools, businesses, playgrounds. Community people can help decide if the plan to build is a good one. As a resident, you can help decide:

- **Is this plan for redevelopment and reuse good for the neighborhood?**
- **Is the new place going to be safe for neighborhood people?**

There are 2 important times you can get involved with a Brownfield site:

1. Get involved when the city or developer is *planning* to cleanup, reuse or build something new at a Brownfield.

For example, a developer is planning to build a new business on an old brownfield site. It will have lots of hills and driveways to make it pretty. The developers think only adults will go to the business site. They want to follow cleanup standards for adults.

But neighborhood people know that the hills may attract lots of neighborhood children. This can be dangerous for kids. **The cleanup standards for adults may not be safe for children.** So you can give the developers good information. For example, you could ask them to make the land less inviting for kids.

Call or write your elected officials (*see sample letter and phone calls on pages 8 and 9*). Ask:



- **What is happening with this site?**
- **Are there plans to develop it?**
- **What are the plans?**
- **Will you hold any public meetings to talk about plans?**

2. Get involved with the cleanup plans.

The scientists and the contractors may schedule local meetings so that you can come and see and hear about the plans for cleanup. This is one of the times that you and your neighbors can be the most help and have the biggest impact. You can help decide if the plans for cleanup are good.



Questions to ask about Brownfields cleanup in your neighborhood

We have already talked about contamination and risk questions on page 4.

- When will the job start? How will you tell the neighborhood?
- Will there be a lot of noise during the cleanup?
- Will any of the waste be treated on the site? Will any chemicals be released during cleanup?
- Is it safe to truck it through the neighborhood?
- Where is the waste being taken?
- What if some of it spills out?
- Will the site be dusty during cleanup?
- What is being done about dust control? Is the dust dangerous?
- Will the chemicals smell? Will the fumes be toxic?
- Who do I complain to if I see something I think is wrong?
- What kind of signs will be posted while the work is going on?
- Will the signs be in different languages? Will they have pictures?
- Will there be guards at the street crossings to help with the truck traffic?
- Will there be a night watchman at the place where the work is being done?
- Will the site be fenced off?

What to expect during cleanup

Abandoned cars, used tires and other trash will need to be hauled away. Buildings and structures need to be taken down. Also, old fencing, asphalt parking lots and unused railroad lines will be removed. Metals, glass, boilers, old machinery and any of the

wooden pieces of the building will also be put into dumpsters and taken away to a landfill.

Trucks

Machines will be digging holes and loading trucks. Large trucks will be traveling back and forth



over the local roads. So you want to know what is the time of day and what days of the week will they be working. Usually the contractor wants to start around **6:30 or 7:00 am** and work until **3:30 or 4:00 pm**. Unless there is a real rush to get the work done, they will work Monday-Friday. So you might ask the question, **“Do you plan to work any overtime on this project?”**

What streets will the trucks use?

Find out what roads the trucks will be using. The people who plan these projects aren't always aware of the kinds of traffic that happen in your neighborhood. You know the local roads—where people walk and drive, and where children play. Maybe there are elderly or sick people on some streets. Usually the truck drivers have more than one choice about what roads they use. You can give them good information about the best routes.



How much truck traffic and how messy?

The contractor should have an idea about how much dirt he needs to take out and bring in. So he can figure out roughly how many loads there will be—1 truck per hour, 10 trucks per hour or something in between.

Trucks can get dirty. Ask, **“Are you going to have a wash down place for the trucks leaving the job?”** A wash down is a platform that the contractor builds and the trucks ride up on it. While the truck is on the platform, workers with hoses spray high-pressure water to clean the trucks before they go out onto the neighborhood roads. This keeps the mud on the job and keeps your neighborhood clean.

How long will the cleanup take?

Most of the time the developers have a good idea how long the project will take before they

begin. But sometimes they are surprised by the things they find. Although the developers may not be able to give you an exact answer about when the job will be done, they should be able to give a best guess for an ending date.

Children and Brownfields

Talk to your children about Brownfields and cleanup. Explain the dangers of playing at or near the site. **Remember truck drivers cannot see every spot around their trucks.** Tell your children:

- **Be extra careful when you cross streets.**
- **Don't play near the Brownfield.**



Older people should also be more careful. If you know of an older person in the neighborhood let them know that the noise and dust will only be temporary.

Take action: write letters

This is a sample letter you can use to write to officials about a Brownfield site.

Turn to the back page to find the names and addresses of agencies and people.



To _____ (write name here)
_____ (include address)

Date _____

Dear Mr./Ms. (write name here),

I am a resident of _____ Street and I am writing to express my concern about the traffic around the Valley Mills cleanup. The trucks begin at about 6:30 in the morning during the week. This is a **problem** for a number of reasons. We have older people living on this street, and children are also walking to school between 7:30 and 8:30 am.

I would like to **request** that two things happen. I believe the trucks should not start until 9:00 and stop at 4:30. Also, I believe Pine Street would be a better traffic pattern for the trucks entering and leaving the site.

I am eager to see the site cleaned up. But I am equally concerned that this cleanup is done in the best way for our neighborhood. Please call me at _____ (your phone number) or write to me at _____ (your address).

Thank you for your time.

Sincerely,

_____ (your signature)

_____ (Print your name clearly here)

◀ **1st paragraph:**
What is the problem?

◀ **2nd paragraph:**
What are you asking for?

◀ **3rd paragraph:**
How can someone get in touch with you?

Take action: make phone calls

Phone call #1: Talking about truck traffic during the cleanup.

Turn to the back page to find the names and phone numbers of agencies and people.

Resident: Hello. I would like to speak to someone about the clean up of Valley Mills. I live in the neighborhood.

Operator: Just a minute please. I'll transfer you.

Planner: Hello. Can I help you.

Resident: Yes. I am calling about the truck traffic at the cleanup site of Valley Mills. My name is _____. I live in the neighborhood ◀ Say who you are. and I would like to talk about the truck traffic.

Planner: What seems to be the problem?

Resident: I think the trucks are starting too early in the morning and causing ◀ What is the problem? problems for older people. The trucks begin coming out of the site at 6:30 in the morning. This is much too early for this neighborhood. We have many older people living here and this traffic is a problem. I want the planners to ◀ What are you asking for? know that I am calling to say that the trucks should not start until 8:00 in the morning.

Planner: I will give the traffic manager your message.

Resident: Thank you. And who is the traffic manager? Could you please spell her name for me. Before we hang up I would like ◀ Get the person's name (write it down) your name. Please spell it for me. Also I would like to give you my name and phone number. I would like someone to call me back. (Give your name, spell it and phone number.)

Thank you very much and I will wait to hear from _____ (the traffic manager's name).



Phone call #2: Finding out if there are any plans for a Brownfield site near you.

Resident: Hello. I would like to speak to someone about the empty building and vacant lot on Mills Street I live in the neighborhood.

Operator: Just a minute please. I'll transfer you.

Planner: Hello. Can I help you?

Resident: Yes. I am calling about the empty building and vacant lot on Mills Street. My name is _____. I live in the neighbor- ◀ Say who you are. hood and I would like to know if the city has any plans to redevelop or reuse this land. Who would know about this land? ◀ What are you asking for?

Planner: You will need to speak with Ms. James. Her phone number is _____.

Resident: Thank you. And can I have your name, please? ◀ Get the person's name (write it down)

Where to call or write

Here are some important phone numbers you can call to get more information about Brownfields in your neighborhood.

City of Providence, Department of Planning & Development

400 Westminster St., Providence, RI 02903
(401) 351-4300

The Providence Department of Planning and Development reviews proposals and prepares re-development plans. Residents can contact the Department to review and get involved with redevelopment plans for their neighborhood. The Department also gives low interest loans for economic development projects.

Rhode Island Department of Environmental Management (RI DEM) Office of Waste Management

235 Promenade St., Providence, RI 02908
(401) 222-2797

The Rhode Island Department of Environmental Management (RI DEM) is a state agency responsible for regulating Brownfields reuse and redevelopment. RI DEM directs soil, air and water testing at Brownfields sites, and the agency reviews any plan for the future use. It also makes sure that contractors doing work at Brownfields follow all laws. RI DEM helps make legal agreements with developers of Brownfields sites.

Rhode Island Department of Health Office of Environmental Health Risk Assessment

Three Capitol Hill, Providence, RI 02908
(401) 222-4948

The Rhode Island Department of Health, Office of Environmental Health Risk Assessment provides information on the health effects of chemicals in people's homes, workplaces, or neighborhoods.

Environmental Protection Agency (EPA)

US EPA-NE, One Congress St., Boston, MA 02114-2023
1-800-EPA-REG1 (1-800-372-7341)

The EPA Brownfields Team provides a variety of technical and financial support involving the assessment and cleanup of Brownfields properties. Activities include community outreach; funding for assessments, job training and revolving loan funds; and expertise in hazardous materials.

Agency for Toxic Substances and Disease Registry (ATSDR)

Office of Urban Affairs, 1600 Clifton Rd, Atlanta, GA 30333
1-888-42-ATSDR (1-888-422-8737)

in Boston: ATSDR Region 1, US EPA-NE, One Congress St., Suite 1100 (HBT), Boston, MA 02114-2023
(617) 918-1495

ATSDR is the main federal public health agency that deals with hazardous waste issues. ATSDR gives states and others advice about what could be the health problems from chemicals and toxic sites.

This project would like to thank The Providence Plan and the following community residents who took such an active role in this booklet's development. They are: Angela Burgio, Joseph H. Burgio, Carlos Corchado, Marisa Corchado, Mayra Corchado, William O'Brien, David G. Sifuentes, Rosa Solis, Victor Solis, and J. Taylor.

Technical support for this project was provided by Christina Zarcadoolas, research and writing; Eva Anderson, design;

Miguel Rojas, translation; and Alyson McCann, URI Home*A*Syst; in collaboration with the RI Department of Health, Office of Environmental Health Risk Assessment.

Acknowledgement of Federal Support: ATSDR provided 69% of the total project costs, as a Federal contribution of \$63,220. The Rhode Island Department of Health provided 31% of the total costs, as an in-kind contribution of \$27,924 (1997 Omnibus Consolidated Appropriations Act Section 507).