

Municipal Guide to Brownfields Redevelopment



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Spotting Brownfields in Your Community

What is a brownfield?

While abandoned buildings and unkempt yards are eyesores in any community, they are not necessarily brownfields. By definition, brownfields are properties in which expansion, redevelopment, or reuse may be complicated by the presence or potential presence of hazardous substances, pollutants, or contaminants. Examples of brownfields include former manufacturing facilities, gas stations, dumps, and small businesses such as dry cleaners or printers. Brownfields can occur in both rural and urban settings, and may even occupy downtown centers or existing neighborhoods.



Brownfields can occur anywhere and likewise can be redeveloped into just about anything. A riverfront park (left) graces downtown Tilton on the former Pillsbury Mill property.



Concord Hospital Medical Offices at Horseshoe Pond (right) are located on the former Concord Lumber site in Concord.



Photos: NH DES

How are brownfields identified?

Community members play an important role in identifying brownfields. Once citizens have a good understanding of what constitutes a brownfield, they often realize they know of potential sites within the community. Citizens can notify their municipality or regional planning agency of these sites, which may then be included in the brownfields assessment process.

What else can citizens do to get involved?

Citizen involvement is critical to the success of any brownfield redevelopment project. Public participation begins during the initial stages of a brownfield assessment with the formation of a Brownfields Advisory Committee. This committee works with the agency leading the assessment to oversee the brownfields inventory process, establish criteria to rank contaminated sites, and select sites for detailed grant funded assessment. Advisory Committee members also assist in public outreach and help to promote brownfield sites as potential opportunities rather than neighborhood problems.



What can be done with brownfields?

Brownfields that are left idle and contaminated pose environmental risks, threaten public health, and tarnish a community's image. Fortunately, they do not have to remain this way. Once a brownfield site has been identified, it is typically targeted for redevelopment. Generally, brownfields cannot have levels of contamination that would place them on either the National Priority List (Superfund sites) or a State priority list. As such, they are not likely to cause immediate or serious health effects to individuals involved in the cleanup and redevelopment process. Revitalized brownfields provide opportunities that are far broader than their original uses. Former brownfields can become anything from golf courses and public parks to mixed use developments, housing, or retail space.



Photo: US EPA

Brownfields can be successfully redeveloped into a number of uses. Minute Maid Stadium (top right), home of the Houston Astros, was once a contaminated brownfield (top left). The Banner Bank Building in Boise, ID went from a brownfield (bottom left) to a LEED certified green building (bottom right).



Photo: Wikipedia



Photo: Boise Capital City Development Corporation



Photo: HDR

Learn More

<http://www.brownfieldscenter.org/big/about.shtml> ~ The Environmental Law Institute's Brownfields Center provides a good introduction on brownfields cleanup and redevelopment, with a focus on the needs of community groups.

<http://www.epa.gov/ne/brownfields/index.htm> ~ The US EPA New England Office (Region 1) has put together a comprehensive overview that provides information on brownfields basics, programs, funding opportunities, resources, contact information, case studies, and success stories specific to New England.

<http://www.epa.gov/swerosps/bf/index.html> ~ The US EPA's Brownfields page provides similar information on a national scale.

The Benefits of Brownfields Redevelopment

Brownfields Redevelopment: a winning proposition

When brownfields are redeveloped, the entire community wins. Brownfields redevelopment projects bring a cleaner environment, economic development, and revitalization to communities who are willing to make the investment.

Environmental Benefits

Decreased Pollution

By definition, brownfields are properties in which expansion, redevelopment, or reuse may be complicated by the presence or potential presence of hazardous substances, pollutants, or contaminants. Depending on its prior use, any number of contaminants may be present, fouling the soil, ground water, and surface water. The brownfields redevelopment process decreases pollution in and around the site by first conducting environmental assessments to determine the presence and extent of contamination. A detailed remedial action plan is then created and cleanup begins. The end result is a property that is not only redeveloped and revitalized but also is free of pollution.



Infill instead of Sprawl



When brownfields sit idle, new businesses often turn to “greenfields” or undeveloped land, which in turn, leads to sprawl. Sprawl results in a number of environmental ills, including lost landscapes, air and water pollution, and increased energy use, along with public health issues, traffic congestion, and an economic burden on taxpayers and local governments. On the other hand, brownfields redevelopment encourages infill. Infill development utilizes existing roadways, sewer systems, and other necessary infrastructure; reduces energy consumption; decreases auto dependency; and helps to maintain natural landscapes.

Economic Benefits

Increased Property Values & Renewed Investment

Abandoned brownfields are eyesores in the community, dragging down the value of surrounding properties. This can cause other residents and businesses to leave the area, spawning additional vacancies and further decay. While contaminated properties have limited uses, a clean site is open to any number of redevelopment alternatives. Once cleanup has occurred, former brownfields can become anything from golf courses to mixed use developments. These revitalized properties not only bring in additional revenue for the community, but also enhance the value of surrounding properties. Furthermore, successful developments encourage additional investments, creating a revitalized and economically vibrant community.



Increased Tax Revenue

Commercial property tax receipts benefit any community, but they are particularly important in New Hampshire. Revitalized brownfields generate increased property tax revenues for municipalities, which help to fund schools and other public investments while decreasing the tax burden for residential property owners.

New Jobs

From the initial environmental assessments and cleanup to construction and the ultimate opening of new businesses, each stage in the brownfields redevelopment process brings opportunities for job creation. Brownfields projects can serve as a platform for workforce development, which is a critical component of community revitalization. The EPA, in partnership with several other federal agencies, offers a number of programs to help local communities capitalize on jobs created during the assessment and cleanup stages of redevelopment, including job development, training, and education initiatives.



Community Benefits

Improved Public Health & Safety

Brownfields redevelopment is a good public health practice. Contamination from idle brownfields may spread to surrounding properties, posing a health threat to people living nearby. Neglected structures often found at brownfield sites present physical hazards, while abandoned buildings may attract drugs and crime. Cleaning up contaminated sites prevents citizens from being exposed to hazardous substances, eliminates physical hazards, and improves the community's overall quality of life.

Enhanced Community Image

Brownfields redevelopment is no small undertaking, however, most people agree it is worth the effort. Revitalized brownfields have a much broader impact than simply restoring their immediate surroundings. The overall image and feel of a community is enhanced, which in turn catalyzes additional improvements by both the public and private sectors. Environmentalists, business owners, public officials, and everyday citizens support brownfields redevelopment because when done right, the entire community benefits.



Learn More

www.epa.gov/swerosps/bf/job.htm ~ The EPA and its partners are committed to fostering workforce development through environmental training to help local residents qualify for jobs created by brownfields redevelopment projects. They offer communities a number of grants, trainings, guidelines, and resources.

<http://www.eda.gov/Research/Brownfields.xml> ~ the US Dept. of Commerce, Economic Development Administration, works with the EPA to encourage market driven brownfield redevelopment through strategic grant investments. Their primary goal is to foster an environment that encourages the private sector to invest in brownfields projects that create jobs and bring about community revitalization.

Getting to Redevelopment

Stakeholders & Roles

Brownfields redevelopment involves the cooperation and coordination of multiple stakeholders. While each project is different, the following chart highlights typical participants and their respective roles.

Stakeholder	Role	Concerns
Property Owner	<ul style="list-style-type: none"> • Sell or develop property 	<ul style="list-style-type: none"> • Receiving fair market value for their property • Managing liability concerns upfront
Grant Recipient	<ul style="list-style-type: none"> • Carry out specific grant requirements • Initiate discussion with property owner • Hire environmental consultant • Provide coordination among stakeholders 	<ul style="list-style-type: none"> • Meeting grant deadlines • Ensuring the needs of all stakeholders are addressed
Public Sector Parties <ul style="list-style-type: none"> • Government agencies • Community groups • Non-profit organizations 	<ul style="list-style-type: none"> • Provide input and assistance on redeveloping the property from a community perspective 	<ul style="list-style-type: none"> • Revitalizing blighted properties to generate economic & community growth • Enhancing community image
Private Sector Parties <ul style="list-style-type: none"> • Investors • Lenders • Developers 	<ul style="list-style-type: none"> • Provide resources to develop the property 	<ul style="list-style-type: none"> • Earning appropriate return on investment • Tying property redevelopment into larger neighborhood or community development plan
Others <ul style="list-style-type: none"> • Environmental consultants • Attorneys • State & federal regulators 	<ul style="list-style-type: none"> • Provide technical, regulatory, or other guidance 	<ul style="list-style-type: none"> • Ensuring property is cleaned up & safe for appropriate levels of use • Alleviating future environmental concerns on the property

Chart adapted from EPA "Anatomy of Brownfields Redevelopment" fact sheet

Stages in the Redevelopment Process

The brownfields redevelopment process typically follows a four stage continuum, from pre-development and securing the deal through cleanup and ultimately property management.

Pre-Development

During the pre-development stage, the developer and stakeholders identify potential reuses for the property and determine how they fit with the community's goals. A Phase I environmental assessment is conducted to ascertain the presence and extent of contamination on the property. Phase II environmental assessments may also be conducted to test for specific hazards identified in Phase I. Additional due diligence activities include securing access to the property and researching land and building titles. Finally, before the project can move forward, potential funding sources must be identified.



Securing the Deal

Once a project moves beyond the pre-development stage, the most important task is to secure financing. Remediation costs are quantified in a remedial action plan and contract negotiations between the buyer and seller occur to determine who is responsible for remediation and how liability will be managed when the project is complete. Once a formal commitment to purchase the property has been made, any needed zoning changes or variances are pursued.

Cleanup and Development

After land use and construction approvals are received, property cleanup can begin in accordance with the remedial action plan. Cleanup activities vary based on the contaminants present and may include soil, surface water, or groundwater remediation. When possible, cleanup and construction activities are integrated to reduce costs. A brownfield redevelopment project is considered complete when construction is finished, ownership and leasing transactions are finalized, and the property is operating according to its planned reuse.



Long-Term Property Management

Long-term environmental concerns may need to be monitored once cleanup and construction are complete. The regulatory agency responsible for the property may require periodic monitoring reports and engineering or institutional controls outlined in the remedial action plan may be used to restrict property access or use.

Public and Private Partnerships in Redevelopment

Brownfields redevelopment can be driven entirely by the public or private sector or by a partnership between the two. In the case of publicly driven redevelopment, a municipality takes responsibility for the entire process. Once redeveloped is complete, the property may be sold to a developer or maintained for a public use. Even in privately driven redevelopment, public funds are often used to conduct preliminary environmental assessments. Under public-private partnerships, the public entity often initiates the process by funding assessments and the infrastructure needed to support redevelopment. The private sector then steps in to fund the pre-development and construction stages. These partnerships provide an incentive for the private sector to participate in redevelopment projects. The public sector also benefits from a reduced financial burden and accelerated cleanup and redevelopment process.

[Learn More ~ Grant Opportunities & Publications](#)

www.epa.gov/brownfields ~ The US Environmental Protection Agency (EPA) provides direct funding for brownfields assessment, cleanup, revolving loans, and environmental job training. They also offer technical information on brownfields financing options.

www.des.state.nh.us/brownfieldsNH ~ The NH Dept. of Environmental Services offers grant funding, cleanup revolving loans, as well as technical assistance to EPA grant recipients.

www.nashuarpc.org/brownfields ~ The Nashua Regional Planning Commission has assembled a list of helpful publications, including "Anatomy of Brownfields Redevelopment," written by the US EPA.

Municipal Perspectives on Brownfields

Public-Private Partnerships

Public-private partnerships are often necessary in order to foster trust and cooperation between stakeholder groups and get redevelopment efforts off the ground. Important partners include elected officials, investors, developers, and environmental professionals. Financial partnerships are often important, if not key, to successful redevelopment efforts, and rely on the stakeholders' abilities to foster trust and cooperation throughout the process.

In addition to financial partnerships, there are several other types worth considering:



Site-specific partnerships ~ help to foster trust between community groups, developers, and local government.

Cooperative-effort partnerships ~ identify neighborhood, town-wide, or state planning efforts that can help to garner additional support or resources for redevelopment efforts.

Regulatory partnerships ~ remove any administrative "penalties" put upon a site due to the presence or perception of contamination, while still addressing community concerns in a careful and proactive manner.

Programmatic partnerships ~ resolve some of the broader regulatory policy issues that impede redevelopment efforts. These partnerships generally involve all levels of government associated with brownfields assessments and cleanup.

Successful Permit Review Process

While brownfields properties often represent exciting reuse opportunities, they can also be difficult from an administrative standpoint because of the many rules, regulations, and requirements involved. However, there are measures that can ease the permitting process at the local level.

- ✓ When practical, allow brownfields projects to be handled by separate staff members or processes, since they are generally unique and highly variable projects needing special attention and consideration.
- ✓ Develop an inventory of brownfield sites to foster familiarity with these types of sites and contamination issues.
- ✓ Include public outreach as part of any brownfield redevelopment permitting, so that affected stakeholders do not feel surprised or threatened by a cleanup or redevelopment activity in their town or neighborhood.
- ✓ Develop an expedited review process for contaminated properties so that cleanup activities can start as soon as possible, especially for "simple" sites. Momentum is often an important part of retaining interest in a site.



Avoiding Risk & Environmental Tradeoff

Risk and uncertainty are always concerns in redevelopment and cleanup planning and represent one of the largest barriers to redevelopment. Fortunately there are a variety of risk management tools available to reduce the amount of risk that must be assumed in a redevelopment effort.

Due Diligence ~ in order to reduce risk and liability, there is no single greater tool than understanding the site-specific contamination issues and conditions associated with a property. A competent and complete *All Appropriate Inquiry* is the first step to reducing risk for all parties involved.

Contractual Protections ~ be sure to understand the indemnities, warranties, covenants, conditions, and releases associated with any contracted work.

Environmental Insurance ~ the field of environmental insurance continues to evolve and strengthen as regulations concerning contaminated properties stabilize. Coverage is often tailored to site-specific conditions and multi-year products are available from increasingly competitive insurance carriers. There are several types of environmental insurance (see text box to left).

Unfortunately, there still is no “magic bullet” for avoiding risk and uncertainty in brownfields cleanup, but using a combination of tools to help avoid liability gaps is the best way to promote a sense of security.

Types of Environmental Insurance

Pollution Liability covers cleanup of unknown pre-existing or new pollution conditions at a site.

Cost Cap covers unanticipated increases in cleanup costs from a known contaminated area due to cost overruns, changes in regulatory laws or standards, or discovery of new contaminants (or extent).

Lender Pollution Liability pays for a loan default where pollution conditions exist.

Finite/Blended-risk Coverage allows the responsible party to pay an insurer the entire present value of the projected cleanup cost (plus a risk premium for excess costs and liability coverage). The insurer then takes on the financial responsibility for cleaning up the property.

End Users & Remedial Action Planning

A Remedial Action Plan is a site-specific work plan that outlines the activities needed to address or minimize environmental or health impacts through contaminant removal, isolation, containment, or treatment. It is generally written with a particular end user in mind.

Cleanup standards outlined in the Remedial Action Plan vary according to the ultimate property use. For example, a property that will be used for residential purposes will have more stringent standards than one that will be used for an industrial activity. For this reason, it is important to identify the potential end users of a property before cleanup begins, so the cleanup effort matches the needs of the ultimate property users, without spending additional monies for a level of cleanup that is not necessary.

Local Success Stories

Former Whitney Screw, Nashua

Driving by Goodale's Bike Shop on Broad Street in Nashua you would never know the property was a previously contaminated and abandoned brownfield. Goodale's Bike Shop and the surrounding retail buildings stand on the former Whitney Screw site. The property was used for a number of industrial activities from the early 1900s until it was abandoned in 1985.



In 1999, the City of Nashua was awarded a \$200,000 US EPA Brownfields Assessment Grant to prioritize and conduct assessment of properties in the Broad Street Redevelopment Corridor. An environmental assessment of the Whitney property found a variety of contaminants, including lead in the soil; lead paint; petroleum soaked wood flooring, boxes, and soil; potential asbestos-containing building materials; heavy metal contaminated soils; and an extensive area of varsol contaminated groundwater.

Despite its extensive contamination, the property had great redevelopment potential. Late in 2001 Smith Jackson,



LLC purchased the property and began working with the NH Dept. of Environmental Services (DES) to develop a Remedial Action Plan. Cleanup work on the site was financed in part by the loan agreement made under the DES Brownfields Cleanup Revolving Loan Fund.

The former Whitney Screw property is now home to Goodale's Bike Shop, New England's largest bicycle dealer, as well as 50,000 ft² of additional retail space. This

site is certainly a success story and can serve as a model for other brownfields projects in the region.



At a Glance

Location ~ 14 Broad Street, Nashua (5.4 acres)

Former Owner ~ Whitney Screw, site abandoned 1985

Contaminants~ lead, petroleum, asbestos, heavy metals, varsol

Funding ~ \$189,000 DES Brownfields Cleanup Revolving Loan Fund;

\$200,000 EPA Brownfields Assessment Grant; \$200,000 DES Petro-

leum Reimbursement Funds; \$20,000 DES UST Fields Pilot Grant

Redevelopment ~ Goodale's Bike Shop & 50,000 ft² of retail space

76 Temple Street, Nashua

The 76 Temple Street property in Nashua proves that brownfields are not always visible to the naked eye. The site consists of two parcels, one of which was vacant and other used for multi-family housing. As with many brownfields in the region, the site's natural depressions were previously filled with building debris and asbestos before being covered with soil. In 2003, Phase I and II Assessments were conducted to confirm the existence of asbestos and determine its precise location and extent. Numerous innovative testing methods were utilized and the results concluded that asbestos was indeed present. In fact, in some areas the asbestos content of fill material was as high as 70% and as deep as 35 feet.



The US EPA Brownfields Grant program funded cleanup activities at the site. In order to keep remediation costs within budget, the City of Nashua created an Asbestos Disposal Team comprised of licensed and certified asbestos disposal site workers. In April 2005 the onsite multi-family housing was demolished and in June 2005 asbestos remediation was conducted for the building foundation. Further asbestos remediation was conducted for the parking lot and utilities in April 2006.

Meanwhile, the Nashua Association for the Elderly (NAE) was looking to expand its facilities. Demand for the 10,000 ft² Senior Activity Center had exceeded its capacity and the NAE was also interested in developing senior housing. A collaborative effort ensued to secure funding for the project. The City of Nashua approved up to \$2.4 million in bonds to construct the facility and Southern NH Services obtained almost \$1 million in US Dept. of Housing and Urban Development funds for the elderly housing component. Construction began in September 2005 and was completed in August 2006. The new 24,000 ft² Senior Center includes 43 units of housing as well as a variety of activity rooms.



At a Glance

Location ~ 75 Temple Street, Nashua (1.3 acres)
Former Use ~ vacant or used for multi-family housing
Contaminants- asbestos
Funding ~ \$2,000,000 City Bond; \$200,000 EPA Brownfields Cleanup Grant; \$204,681 HUD CDBG Funds; \$785,339 HUD EDI Funds
Redevelopment ~ Nashua Senior Activity Center & Housing