



Community Actions that Drive Brownfields Redevelopment



Foreword

The U.S. Environmental Protection Agency (EPA) developed this guide to help communities with brownfields to more successfully address community revitalization and brownfields-related challenges. It outlines concrete actions communities can take to address these challenges. Attracting public or private investment for the reuse of brownfield properties can bring economic and social benefits to communities, in addition to improving environmental conditions.

Acknowledgments

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Communities struggle to find solutions to idle properties that have no viable prospects for redevelopment. Many are brownfields that are environmentally contaminated—or potentially contaminated—due to past uses at the property.

Revitalizing brownfields provides new economic and social benefits to communities, in addition to improving environmental conditions.

Reusing stagnant brownfield sites requires special attention. In communities with weak economic or market conditions, socioeconomic barriers, or other challenges, brownfields can remain idle for years. Still, a local community can take several actions even at the most challenging sites to best position brownfields for successful reuse.

Brownfields are properties that are or may be contaminated with hazardous substances, pollutants, petroleum or other contaminants that pose a barrier to productive reuse. Brownfields often are in struggling neighborhoods and areas with blight, deteriorated infrastructure, or other challenges.

How can my community best position itself to successfully reuse our brownfield site?

Your community can create the necessary conditions to attract private or public investment to your brownfield site by:

- ▶ Understanding development opportunities and constraints, and
- ▶ Answering key questions about ownership status, environmental conditions and viable future uses of the property.

There are several actions your community can take to prepare a site for investment and to see it through the redevelopment process. Each action is intended to reduce the uncertainties inherent in the development process, where uncertainty translates as risk. Each action generally falls into one of five steps. **Address these five steps to help reduce uncertainty about the site and help minimize financial risk.**

Keep in mind—every project is different, so adjust as necessary. Your community may have already started or completed some of these steps, may not require all actions, or may take actions in a different order.

Two questions to get started:

► **Do you understand brownfields and the brownfield redevelopment process?**

Learn about brownfields and the brownfield redevelopment process. Conduct research and gather information about the brownfield sites, the surrounding neighborhood, and existing infrastructure. Start identifying the people and organizations that have an interest and stake in what happens at the site.

► **What is your overall game plan?**

What is your general timeline for redevelopment? Where can you build in flexibility throughout the redevelopment process?

5 Steps for Successful Brownfield Redevelopment

Step 2

Create a reuse vision that is exciting and realistic.

With the support of community stakeholders, create ambitious and exciting goals for brownfields revitalization. Set appropriate expectations by ensuring the resulting vision realistically considers the opportunities for and constraints to redevelopment.

Step 4

Engage developers and end-users.

Engage potential developers, tenants, institutions, foundations, and potential end users who may be interested in acquiring the property or investing in the redevelopment.

Step 1

Lead with stakeholder involvement that empowers the local community to become redevelopment champions.

Engage with the property owner, community organizations and nonprofit leaders, public officials and business leaders. Identify potential opportunities for and constraints to redevelopment. Work with stakeholders to identify necessary resources and identify champions.

Step 3

Remove barriers to brownfield redevelopment.

Identify development opportunities and potential constraints, such as site environmental conditions, necessary infrastructure improvements, and land use restrictions. Identify necessary funding sources and other resource needs to address each constraint and remove redevelopment barriers.

Step 5

Complete site preparations and close the deal.

Finalize the remediation and development strategy. Implement the remedy. Incorporate sustainability principles to minimize environmental and public health impacts. Establish a long-term plan for property management. Market the property widely. Put shovels in the ground.



Determine where your community needs to start. Build momentum by first tackling the actions that are achievable in the near-term and build on each success!

STEP 1



Lead with stakeholder involvement that empowers the local community to become redevelopment champions.

Encourage key community stakeholders to lead revitalization efforts from the start.

Keys to Success

- ▶ Get the backing of affected and interested residents within the community and crucial supporters such as anchor institutions, nonprofit organizations and community foundations.
- ▶ Involve institutions and foundations such as universities, youth groups, the Chamber of Commerce and placed-based foundations.
- ▶ Develop a full understanding of the site, the market for development and constraints to development.

How can my community do this?

Engage a broad cross-section of the community to support the redevelopment evaluation and initial visioning effort. Engage the property owner, key public officials, community leaders, business owners, and others in the community to oversee and support the site reuse assessment and planning process.

Conduct a site reuse assessment and a land use assessment to identify constraints and potential opportunities for site reuse. Fully evaluate site characteristics, conditions and applicable regulations to identify potential reuses for the property once it is remediated. If information on the environmental condition of the site is not available or has not been developed, conduct a Phase I environmental site assessment to identify potential environmental conditions.

Conduct a market study and share market conditions for the site. Match the site reuse assessment with market information. Conduct a market study early in the process to help community stakeholders and local government leadership understand the reuse options that can be supported by the local and regional market.

Address socioeconomic issues and neighborhood challenges. Look at the social, community health, environmental and economic issues that affect the area or neighborhood and try to understand underlying causes (e.g., educational opportunities, housing conditions). Identify actions that will improve these conditions: do not ignore them. Determine if and how the redevelopment of each brownfield site can directly address or help mitigate these challenges.



Create a site reuse vision that is exciting and realistic.

An appealing and flexible [site reuse vision](#) can spur investment and inspire solutions at sites that otherwise might remain vacant for even longer.

Keys to Success

- ▶ Work with the property owner to understand their expectations for redevelopment.
- ▶ Calibrate the owner's and community members' expectations to align with the market conditions and other site realities uncovered during the site reuse assessment. This is particularly important at sites where the owners mothballed the property for long periods of time or may have unrealistic expectations about property value.
- ▶ Develop a redevelopment concept plan to illustrate the vision and potential reuse for the site.

How can my community do this?

Balance ambition with attainability when creating the reuse vision. Developers, investors, and funders are much more likely to get involved in a brownfield project if they understand the community's vision for the property and are confident that the local government will provide the support necessary to achieve the redevelopment goals.

Work closely with your community to identify reuse priorities. Ensure neighborhood residents who are most affected by the potential redevelopment are included in your planning activities and have an equitable voice in creating the reuse vision.

Prepare drawings and renderings that present reuse alternatives and concepts. Visualize how the proposed redevelopment will look. Use these materials to promote your community's site reuse vision alternatives for the area and attract support from potential funders, investors and developers and end-users. Create a briefing sheet that summarizes your plan and distribute it widely.¹

¹ See example of a briefing sheet on pp. 31-33 of [Setting the Stage for Leveraging Resources for Brownfields Revitalization](#).

For projects that require significant private investment, a conceptual reuse vision typically is preferable unless (or until) a master developer is identified.

For projects with primarily public funding, a more detailed and formal vision can be developed.

Increase support for your revitalization vision within the neighborhood, the nearby community and the local government. Build momentum for revitalization by demonstrating the project's viability with a strong site reuse vision, a plan for overcoming barriers, and good visual materials that effectively convey that vision and plan. Whenever possible, engage with community institutions and foundations. Keep residents of nearby neighborhoods and community groups informed and involved in each step. If redevelopment will be privately led, make sure the affected community is interested and involved.

STEP 3

Remove barriers to brownfield redevelopment.

Typically, developers must meet permitting and ordinance requirements such as building codes, zoning restrictions, and height and location restrictions. Many of these requirements include obtaining approvals from various government entities. Developers also may need to meet additional requirements imposed by lenders to secure financing. Often, these administrative hurdles are easier to address when building on an undeveloped greenfield than they are when redeveloping a potentially contaminated brownfield.

Keys to Success

- ▶ Address environmental and infrastructure issues.
- ▶ Expedite the zoning, regulatory, permitting and approvals for expected reuses.
- ▶ Create the brownfields revitalization plan.
- ▶ Work to make the site as “shovel-ready” as possible.
- ▶ Develop a site disposition strategy.

How can my community do this?

Address environmental contamination. Define and address contamination issues.² If you have not already done so, perform a Phase I and Phase II environmental site assessments to determine whether environmental contamination exists. If so, characterize and quantify the risk from contamination. Once the nature and extent of contamination and the desired end uses are known, work with state or tribal government officials to develop a plan to clean up the site. Research whether previous insurance policies exist for the sites, which could potentially provide resources for remediation. If purchasing the site, ensure you have the [appropriate environmental liability exemption or defense](#). Consider whether purchasing environmental insurance can help with risk transfer.

² Consider whether [brownfields resources from U.S. EPA](#) or working with your [state's environmental agency](#) can support these efforts.

Brownfield sites are more appealing to investors when the locality paves the way for redevelopment.

Create a clear landing pad for developers and end-users by having a realistic reuse vision and site approvals in place.

Address infrastructure issues. Actions to improve infrastructure will boost the prospects for brownfield revitalization. Identify where infrastructure is an asset and where existing infrastructure may be incompatible with site reuse plans. Partner with state and federal agencies, financing entities, and the private sector to design and build improvements to these systems. Pay attention to necessary water infrastructure upgrades and broadband infrastructure expansion.

Many brownfields are already located near established roads, train lines, ports or other infrastructure. Such locations provide an advantage over undeveloped greenfields.

However, the existing infrastructure may need to be upgraded to support desired reuses.

Expedite titling, zoning, regulatory and land use approvals whenever possible. Identify land use regulations such as zoning, building codes and other regulatory or permitting issues related to the proposed site reuse. If regulatory or permitting requirements present barriers to redevelopment, determine which can be addressed now or in the near term. Assign staff to coordinate consideration of any zoning, permitting and local approval issues before local boards and commissions. Proactively reach out to regional, state and federal government approving authorities to inform them about your community's brownfields reuse vision and plan and answer their questions.

Pull the vision together with a brownfield revitalization plan. Develop a planning document that articulates and illustrates goals for site reuse, addresses land use regulations, outlines site improvements needed, and includes an implementation strategy to guide the redevelopment.

Lead with public investment and leverage additional funding. Separate major infrastructure and site preparation projects into smaller individual projects. Identify discrete actions that will accomplish each smaller project. Identify potential funding sources for each component.

Look for leveraging opportunities. Start by listing and estimating costs for environmental assessment and cleanup, infrastructure upgrades, vertical construction, and other stages of development. One way to do this is by creating a [Resource Roadmap](#).³

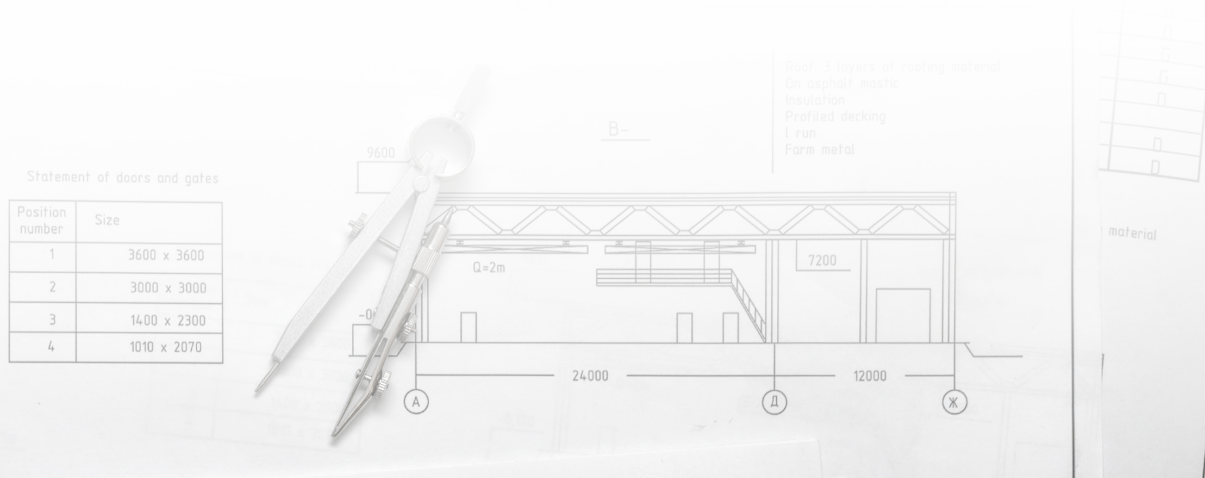
Demonstrate local government commitment to the project by investing public resources in the project. Wise use of available local government resources often leads to leveraged investment from other parties.

Develop a site disposition strategy. Decide whether and how to transfer ownership of the property in a way that provides value to both the seller and the buyer (e.g., such as property sale, ground lease, lease with option-to-purchase, etc.).

³ Also see an example of a Resource Roadmap on pages 28-30 of EPA's [Setting the Stage for Leveraging Resources for Brownfields Redevelopment](#).

Leveraging: Using existing resources or funding to attract additional resources or funding for your project.

Resource Roadmap: A chart showing redevelopment priorities, key projects and components, estimated costs and funding and support needed for each, along with potential sources of funding for match and leveraging, and key next steps.



STEP 4

Engage developers and end-users.

Communicate frequently with potential developers, tenants and end-users. Provide regular updates on the site reuse vision to increase and monitor potential interest from private investors and non-profit stakeholders.

Keys to Success

- ▶ Maximize flexibility by assembling properties when necessary.
- ▶ Several viable redevelopment scenarios will help attract the market to the site.
- ▶ Market your reuse vision and gauge potential interest from developers

How can my community do this?

If necessary, assemble properties. Sometimes a brownfield property is not viable unless combined with adjacent properties. Reasons for this include type or size of the site needed for the desired reuse, limited site access, or improvement of surrounding blighted conditions. Your municipal economic development authority or land bank can help by acquiring, assembling, and preparing sites for transfer back to the private sector for redevelopment.

Create market interest, particularly when local market conditions are weak. Your community's efforts to market the site can create "buzz" and generate interest from potential tenants or other

end-users. Further reduce risk for potential investors by eliminating remaining uncertainties to specific to the brownfields, such as knowledge of environmental conditions, land use restrictions, public or neighborhood resistance to change.

Issue a request for expressions of interest from developers and investors. Your community can [gauge the potential redevelopment interest in your property](#) by requesting preliminary, nonbinding statements of interest. This process allows your community to engage potential redevelopers, discuss what is needed to achieve the overall reuse vision, and chart a path toward reuse.



Complete site preparations and close the deal.

Finalize your plans for completing site preparations and managing any ongoing environmental issues. Make the site as “shovel ready” as possible.

Keys to Success

- ▶ Keep the community informed about progress involving site remediation and redevelopment plans. Properly explain and manage engineering and institutional controls for the site.
- ▶ Market the site and reuse vision at every opportunity, even after the deal is closed.

How can my community do this?

Finalize a remediation and development strategy.

Map out the various projects that must be completed and develop the timelines necessary to complete the redevelopment. Incorporate [greener cleanup principles](#) to minimize environmental and public health impacts. Follow the redevelopment plan and keep the public informed as the project progresses.

Establish a long-term plan for property management. Maintain remedial systems and follow institutional controls to ensure long-term stewardship of the site. A well-managed property will set the stage for future investments and associated long-term quality of life improvements in the project area.

Continue to market the site and communicate your reuse vision. Never stop building enthusiasm for your vision. Provide regular updates to the community. Generate support by hosting community events on-site or nearby to draw interest. Once a developer is on board and the sale of the property is closed, continue to have stakeholders champion the goals of the reuse vision and continue to communication through local networks.

Nothing succeeds like success, so when your brownfield site redevelopment is complete be sure to...

Celebrate Success!

Celebrate your successes, big and small. Reflect with your community on what it took to move that brownfield site out of “stuck” status and into opportunity.

- ▶ Celebrate groundbreakings and ribbon-cuttings.
- ▶ Thank key supporters and keep them involved.
- ▶ Continue outreach through media and social media.

Community celebrations can get the word out, drive the market, attract investors, and build momentum for revitalization of the brownfield site and the surrounding neighborhood.





What have others done?

Examples abound throughout the country where communities have addressed brownfield challenges through the actions that make up these five steps.

Carlisle, Pennsylvania



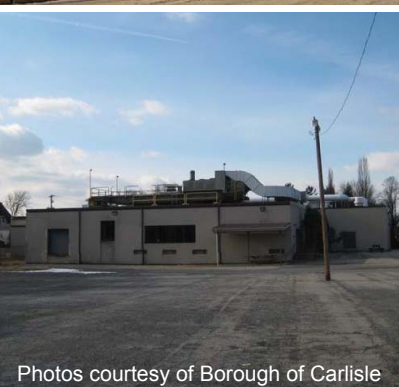
In 2017, the Borough of Carlisle began construction on affordable workforce housing and greenspace at the 12-acre former Carlisle Tire & Wheel site. Work also began on a residential/retail/office complex and park at the 48-acre former International Automotive Components and Masland Carpet site. These sites are two of the three key brownfields slated for redevelopment in Carlisle's northwest neighborhood.



The redevelopment of these sites was envisioned in Carlisle's 2013 Urban Redevelopment Plan, which was created with the aid of EPA brownfields grant funds. The Borough engaged the Carlisle community extensively throughout the process, beginning with a week-long planning and design charrette. A series of additional workshops culminated with creation of a broad redevelopment framework for a 68-acre brownfields area. The plan considered market-based factors and identified the need to upgrade transportation and stormwater infrastructure in the area. The Borough created a Resource Roadmap to identify and navigate funding sources for specific projects, and created a tax-increment funding (TIF) district to aid in major capital improvements.



Today, the project boasts continued strong public-private partnerships and more than \$27 million in funding leveraged from federal, state and local sources. Another \$640,000 came from philanthropic organizations. The ambitious redevelopment demonstrates how Carlisle turned an environmental challenge into opportunity for its residents by reimagining and repurposing three of its largest industrial brownfields after manufacturing operations ceased at all three sites between 2008 and 2010. The Borough continues to meet regularly with the developers to ensure that the community's vision for the area is maintained as the vision becomes reality.



Photos courtesy of Borough of Carlisle

Huntington, West Virginia

The City of Huntington has suffered decline, poverty, and blight due to the loss of manufacturing facilities and jobs that once fueled its economy. Huntington's neighborhoods were built around industrial plants. When the plants closed, the city was left with numerous brownfields and hundreds of acres of vacant industrial property.

The city took many actions to tackle the challenge of revitalizing its Ohio River waterfront area. Huntington used EPA brownfields grant funds to work with the community and other stakeholders to create a vision and develop an area-wide plan and implementation strategy for the waterfront area, known now as the [Huntington Brownfields Innovation Zone \(H-BIZ\) Plan](#). The city also used EPA brownfields grants to assess and plan for reuse at four closed and contaminated manufacturing sites. These initial actions served as initial steps toward preparing the properties for reuse and spurring revitalization. Huntington then lined up sources of cleanup and site improvement funding to support redevelopment implementation, using resources from an EPA Brownfields Cleanup Revolving Loan Fund grant and the state economic development authority.

The city produced a market assessment, infrastructure upgrade plan, land use design, and green infrastructure approaches and developed strategies for leveraging funding and community support for its existing H-BIZ initiative. This revitalization plan envisions transforming the project area into a hub of economic revitalization that will include a sports center, riverfront recreation and parks, associated mixed-use commercial and retail development, higher education facilities and a center for advanced manufacturing and research. Key partners working the city on this project include Marshall University, the West Virginia Department of Environmental Protection, and the Huntington Neighborhood Institute.



Photos courtesy of City of Huntington

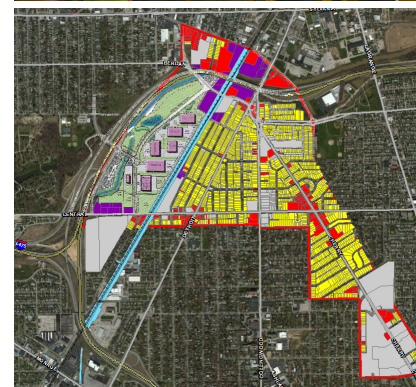
Toledo, Ohio

Local partners from Toledo worked together over several years to revitalize the Overland Industrial and Cherry Street Legacy neighborhoods, located just north of downtown Toledo along the I-75 corridor. The area serves as the key connection between the city's downtown and northern neighborhoods. Constraints to redevelopment included numerous brownfields, a high percentage of vacant parcels, difficult transportation access due to an outdated street layout, and socioeconomic challenges including high poverty, unemployment, and limited access to fresh food.

After the Toledo Jeep Plant closed in 2006 and was demolished, the Toledo-Lucas County Port Authority purchased the property. They started planning, assessment and cleanup activities using funds from EPA's Brownfields Program and the state's Clean Ohio Program. Numerous stakeholder engagements with key neighborhood partners and residents combined with supporting market study data resulted in a realistic vision for the area, with redevelopment concepts that included a mix of industrial, commercial, and live/work spaces.

The team of local partners next developed strategies to implement the redevelopment. They identified and leveraged support from public and private sources for infrastructure upgrades, neighborhood improvements, environmental site assessment and cleanup, business formation or expansion, and public amenities. The city also addressed challenges such as small parcel size and addressed potential zoning issues resulting from population decline that had reduced the demand for housing in the area.

Upon final remediation closure efforts, the Port Authority made a \$15 million investment to add necessary infrastructure and construct a 100,000-square-foot speculative building site. Major auto supplier firms now occupy the property; their businesses are expanding with investments up to \$100 million and hundreds of new permanent jobs in the area.



Photos courtesy of Vita Nuova, LLC

Where can I get more information or assistance?

EPA offers grants, technical assistance and other informational resources to help you. Visit the EPA website at www.epa.gov/brownfields.

EPA Brownfields Grants and Direct Technical Assistance

EPA provides grants and technical assistance to local, state and tribal governments and nonprofit organizations. Brownfields grants can catalyze significant brownfield activities at the local level, clean up and revitalize specific sites, and help a community build a brownfields program. As of February 1, 2019, these investments have [leveraged](#) \$27.527 billion in cleanup and redevelopment funding from public and private sources and resulted in the creation of over 144,800 jobs.

The following types of brownfields grants and technical assistance are available from EPA:

Competitive Grants

- ▶ **Brownfields Assessment:** Grant to an eligible entity or a coalition of eligible entities to investigate and assess brownfield properties, and for cleanup planning at those sites. Applying for these grants is often the first step a locality takes to launch a local brownfields program.
- ▶ **Brownfields Cleanup:** Grant to an eligible entity for cleanup of specific brownfield sites that are owned by the applicant.
- ▶ **Brownfields Revolving Loan Fund:** Grant to an eligible entity to capitalize an existing revolving loan fund to support brownfields clean ups.
- ▶ **Brownfields Multipurpose:** Grant to an eligible entity to inventory, characterize, assess, plan for, or remediate one or more brownfield sites within a target area.
- ▶ **Environmental Workforce Development and Job Training:** Grant to an eligible entity to recruit, train, and place unemployed and under-employed residents from brownfield areas, preparing them with environmental job skills including proper management of hazardous and solid waste.

The 2018 Brownfields Utilization, Investment and Local Development (BUILD) Act expanded the definition of “eligible entity” for EPA brownfields grants. Non-profit organizations with 501(c)(3) status are now eligible to apply for any of EPA’s brownfields grants.

Non-Competitive Grants

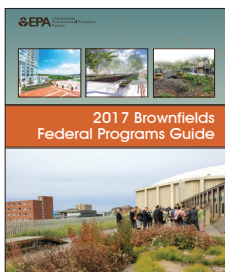
- ▶ **State and Tribal Response Program** – Annual grants awarded to states, tribes and territories to create new or to enhance existing environmental response programs. The funding can be used to conduct limited site assessments or cleanups at brownfield sites; perform other activities that increase the number of response actions conducted or overseen by a state or tribal response program; capitalize revolving loan funds for cleanup; purchase environmental insurance; or develop other insurance mechanisms for brownfields cleanup activities.

Technical Assistance

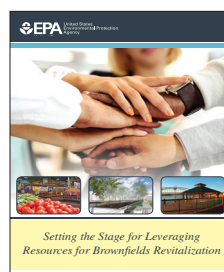
- ▶ **Targeted Brownfields Assessment (TBA) support** – EPA provides contractor resources to communities to assess and characterize brownfields where the assessment of the property could spur redevelopment. EPA generally provides TBA support to communities that do not already have an EPA brownfields assessment grant.
- ▶ Under the **Technical Assistance to Brownfields Communities (TAB) program**, three regional TAB providers serve as independent resources and can provide expert technical assistance and guidance for parties interested in acquiring, assessing, cleaning up and redeveloping brownfields properties. The TAB program is funded by EPA and available to all stakeholders. EPA awarded TAB grants to three organizations that provide technical support to brownfield sites in various EPA regions. These organizations include:
 - [New Jersey Institute of Technology \(NJIT\)](#): Serving EPA Regions 1, 3 and 4.
 - [Kansas State University \(KSU\)](#): Serving EPA Regions 5, 6, 7, 8 and tribal programs nationwide.
 - [Center for Creative Land Recycling \(CCLR\)](#): Serving EPA Regions 2, 4, 9 and 10.
- ▶ Other organizations that provide specialized technical assistance for brownfields:
 - [Council of Development Finance Agencies \(CDFA\)](#).
 - [Groundwork USA](#).
 - [Hazardous Materials Training and Research Institute at Eastern Iowa Community College \(HMTRI\)](#).
 - [University of Louisville](#).
 - [Kansas State University \(Tribal Technical Assistance\)](#).

Other Resources

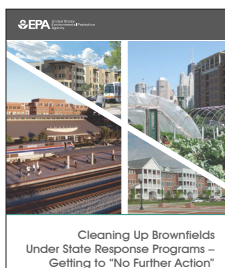
EPA has a variety of Brownfields and Land Revitalization publications, including guides, success stories, and tools that communities can use to address specific brownfields-related issues and challenges. Here are just a few. See the [Land Revitalization website](#) for a complete list.



The [*Brownfields Federal Programs Guide*](#) is a compendium of resources available from other federal agencies for brownfields revitalization, including funding available for related infrastructure projects.



[*Setting the Stage for Leveraging Resources for Brownfields Revitalization*](#) is a guidebook on leveraging resources for brownfields revitalization, which includes a template for preparing a Resource Roadmap on page 28.



[*Cleaning Up Brownfields Under State Response Programs — Getting to No Further Action*](#) — is a guide on entering a brownfield into a state cleanup program and attaining a state decision or certification of the need for “no further action.”