United States Environmental Protection Agency

Community Actions That Drive Brownfield Revitilization

Foreword

The U.S. Environmental Protection Agency (EPA) developed this guide to inspire local governments and community partners to take local actions that will help them successfully overcome the challenges caused by brownfields and blight in downtowns and neighborhoods.

This guide includes **six actions** that can be done by the local community to help prepare a brownfield site for reuse. 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 and creating sustainable places.

Links to external, non-EPA resources are provided for informational purposes only. References to external resources do not constitute an endorsement by EPA, and EPA does not take any responsibility for their content.

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Cover photos, clockwise from top left: Hoff Family Arts and Culture Center in Council Bluffs, Iowa; graduates of the City of Chicago's Greencorps Chicago environmental job training program; a former industrial site targeted for redevelopment in Fairmont, West Virginia; and a redeveloped public park in Ponce, Puerto Rico.

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Introduction

Communities often struggle to find solutions for idle properties that do not seem to have viable prospects for redevelopment. Many properties are brownfields that are environmentally contaminated, or potentially contaminated, due to past uses at the property.

Brownfields and vacant properties can present risks to human health and the environment, contribute to blight, and hinder community revitalization. However, cleaning up and safely reusing these sites can generate numerous benefits for communities, such as:

- increased environmental protection,
- reduced health risks,
- expanded local tax bases,
- new businesses and jobs,
- blight reduction and elimination,
- enhanced local quality of life,
- increased neighborhood amenities,
- reduced sprawl,
- resilient reuses using clean energy and green infrastructure, and
- new green spaces.

Brownfield sites typically require proactive, local community action to light the spark for reuse.

In most communities, blighted properties do not take care of themselves; they require special attention. Market forces alone do not transform these sites into community assets. In communities with weak economic conditions, socioeconomic barriers, or other neighborhood challenges, brownfields can remain idle for years or decades.

However, local communities can spark progress at these sites. When backed by effective state and federal programs and supported by the right resources, a local community can take **key actions** to drive challenging brownfield sites towards revitalization.

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

How can my community best position itself to safely and successfully reuse our brownfield sites?

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

- **Answering key questions** about ownership status, environmental conditions, zoning, infrastructure upgrades, and viable potential future uses of the property;
- Creating a **community-backed vision** for revitalization that incorporates sustainable and attainable future uses;
- Securing **grants and other resources** for revitalization; and
- Shaping **redevelopment opportunities** and **removing constraints** to help prime the market and attract redevelopers and users.

Below are six key actions your community can take to move a site towards redevelopment. Each action will help your community **reduce the uncertainties** inherent in the redevelopment process, which is important because **uncertainty leads to financial risks and delays**.

Two questions to help your community get started:

1. ***How much do you know already about brownfields and land revitalization?***
If you are brand-new to brownfields and land revitalization - no problem! Contact your Technical Assistance to Brownfields Communities (TAB) provider for free, initial assistance.

If not brand-new, you can start to research and gather information about target brownfield sites, the surrounding neighborhood, and existing infrastructure. You can also start identifying the people and organizations that have an interest and stake in what happens at these sites.

2. ***What is your overall vision?***
Does your community have a vision for those stuck sites? What is your general timeline for redevelopment? Where can you build in flexibility throughout the redevelopment process?

Keep in mind–while there are six actions recommended here, every project is different, so adjust as necessary. Your community may have already started or completed some of these actions, may not require all actions, or may take actions in a different order.

6 Key Community Actions to Drive Brownfield Revitalization

1. **Lead with Stakeholder Involvement**
2. **Create an Exciting & Realistic Reuse Vision**
3. **Support Resilient & Sustainable Benchmarks for Revitilization**
4. **Create a Resource Roadmap**
5. **Remove Barriers to Brownfield Redevelopment**
6. **Engage Developers & End-Users to Help Close the Deal**

1. Lead with Stakeholder Involvement

Revitalization happens outside the walls of City Hall. Community leaders, business owners property owners, nonprofit organizations, and residents are all important stakeholders. These groups should be invited up-front to help make decisions through meaningful engagement. To ensure that your project will serve a community need, you can connect directly with neighborhood residents affected by redevelopment and share how their feedback will be used to shape the project. You also can create a variety of opportunities for public involvement through in-person activities and online engagement while keeping your community up to date. Finally, you can conduct a site reuse assessment and land use assessment to identify property constraints, a market feasibility study to identify viable reuses, and an economic impact analysis and a fiscal impact analysis to show how the neighborhoods surrounding brownfields can benefit.

Detroit Downriver Community

The area just south of the City of Detroit, Michigan on the western bank of the Detroit River, known as the "Downriver Community", is made up of 20 cities. The area has been highly polluted due to legacy uses that are now closed, such as auto manufacturing plants, coal-fired power plants, steel mills, chemical plants and refineries.

In 1981, elected officials joined with local leaders and neighborhoods to establish the Downriver Community Conference, a nonprofit that has leveraged 12 separate U.S. EPA Brownfield grants totaling over $12 million, to organize with community-based groups and neighborhoods to create a stakeholder-driven plan for sustainable revitalization of brownfields and economic diversification, dubbed "**D**ownriver **R**evitalization for **E**nvironmental **E**quity, **A**dvancement & **M**obility" – the Downriver DREAM. Downriver has established the only international wildlife refuge in North America, created a new economy for electric vehicle technologies, and launched a local shift from coal-fired electricity to solar, geothermal, and battery storage power innovation.

2. Create an Exciting and Realistic Reuse Vision

Concept plans, visually attractive site reuse plans and renderings will spur stakeholder imagination and can create a unified community eager for new jobs, safe recreation spaces, or service amenities at the brownfield sites. To ensure your project reflects the community's goals, you can build a site reuse vision that aligns your community's goals with market realities and site environmental conditions. A site reuse vision can be used to show local property owners and your community what is possible and build momentum for the project. Additionally, the site reuse vision can be shared when seeking public funding/financing and private investment.

Bay City Puts Uptown Vision into Action

On the bank of the Saginaw River in downtown Bay City, MI, the community used an EPA Brownfield Multipurpose grant to create a vision, urban design and infrastructure plans, site concepts, and renderings of a new "Uptown Bay City" mixed-use development.

This property had been a massive industrial brownfield that was the home since the 1870s for foundries, sawmills, leather and saddle making, coal and aggregate storage, a redi-mix concrete plant, and the manufacturing plant for the giant cranes that built the Panama Canal.

This city-led reuse vision and concept plans, together with environmental investigations and cleanup planning conducted by the city's team, attracted a regional developer to build Uptown. Uptown is anchored by a solar manufacturing research & development headquarters with 400+ high-skills workers, a regional hospital center, retail and entertainment businesses, downtown residences, and a city riverwalk. The community made its vision a reality! cea.mml.org/?cea=uptown-bay-city-project

3. Support Resilient and Sustainable Benchmarks for Revitalization

Reusing long-blighted or underused properties can provide tremendous opportunities to increase your community's resilience and sustainability.

Building resiliency and sustainability into your project will allow your community to address development and infrastructure challenges simultaneously. Your community can prioritize infrastructure improvements to community safety, affordability, and health; improve access to green space; manage stormwater safely on-site by incorporating appropriate green infrastructure approaches or nature-based solutions; rebuild using durable materials appropriate for extreme weather or other disruptive events; and integrate energy- and water-efficient innovations to reduce costs over the long-term.

Community leaders can integrate approaches such as household energy efficiency tools, downpayment and closing cost assistance, community land trusts, inclusionary zoning, or small business preservation and tax abatement programs to provide residents and business owners with tools to remain and thrive in their newly revitalized neighborhood.

A Green & Health-Focused Community Center

The Hamlet of New Cassel (pop. 10,000) is part of the Town of North Hempstead on Long Island. The town built the first LEED[1] Platinum community center in the U.S., a $22 million investment. The "Yes We Can" Community Center replaced blighted and polluted housing and commercial structures.

The Center opened in 2012 with two basketball courts, a café and computer training center, dance and TV studios, lounges for youth and seniors, a fitness center, conference rooms, and a multipurpose social gathering space.

The Center sparked further investment for affordable senior housing, a community park, and a healthy foods farm market. The Center is an exciting example of how a locality can transform blight into an accessible community hub filled with important amenities for local residents.

www.northhempsteadny.gov/departments/parks_recreation/_yes_we_can__community_center/index.php

4. Create a Resource Roadmap

A transformative brownfield revitalization project typically involves many components, several phases, and complex stacks of funding and financing. Breaking down the project into discrete activities that need funding and matching up possible funding sources can make the process more manageable.

To delineate the various components of your project, you can develop a Resource Roadmap. This tool helps you decide how to sequence revitalization activities, match them to the best funding sources, and weave different funding sources into an effective capital stack. To develop a Roadmap, you will need to work with your team to decide which grants, subsidized loans, financing, public, and private investments you need to pursue.

Small Community Leverages Millions of Dollars to Transform Dead Factories Using a Resource Roadmap Approach

The Carlisle, PA community (pop. 20,000) faced what felt like insurmountable redevelopment barriers when three large industrial facilities closed from 2008 to 2010, followed by a scorching fire at the largest closed factory. The industries left behind lost jobs, 65 acres of brownfields, and tens of millions of dollars in redevelopment costs.

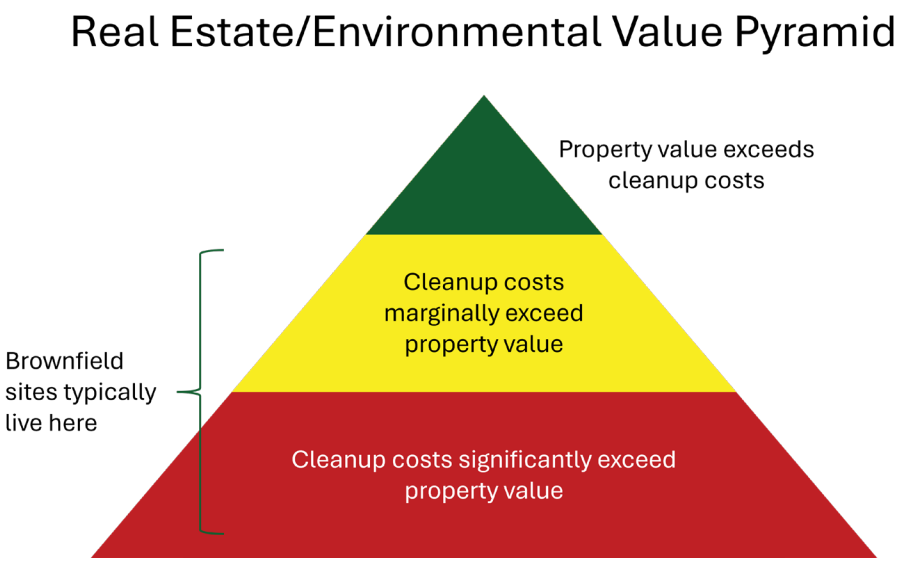
To encourage redevelopment, the Borough used a U.S. EPA Area-Wide Planning Grant to lead a visioning process which culminated in the Carlisle Urban Redevelopment Plan. The planning process included a Resource Roadmap. Using the Roadmap, Carlisle successfully obtained $27 million in funding leveraged from federal, state and local sources, plus created a tax-increment funding (TIF) district. The public investment led to an additional $60 million in private investment, and multi-family apartment buildings, townhomes, small-scale commercial, community spaces, a hotel, restaurants and high-end car condos.

[1] LEED (Leadership in Energy and Environmental Design) is a building certification program sponsored by the U.S. Green Building Council. It has several levels of certification that can apply to new building design and construction (BD+C); existing building operations and maintenance (O+M); and interior design and construction (ID+C). LEED Platinum the highest rating.

5. Remove Barriers to Brownfields Redevelopment

In most markets, potential buyers and future users often are hesitant to move forward with the unknown risks and additional environmental costs associated with brownfields. Investors prefer a shovel-ready project site with strong community support because there are fewer risks and potential obstacles. Too much financial risk and time spent navigating obstacles will likely ruin the project.

To reduce financial risks and obstacles to a site reuse, you can leverage federal and state assistance to investigate site conditions, develop cleanup plans and even conduct cleanup. Localities can also continue regular community engagement and updates, provide needed infrastructure upgrades, expedite zoning changes and permitting approvals, and prepare the site for reuse with market-ready site reuse scenarios that have support from project stakeholders.



Weaving New Revitalization at the Vacant Interwoven Sock Factory

When Interwoven Mills, once the largest sock factory in the world, closed shop in 1974, all 3,500 workers lost their jobs. Since then, the 8-acre, 325,000 sq. ft. complex of beautiful but blighted brick textile buildings has sat mostly idled and underutilized at the gateway to downtown on Martinsburg, WV's main corridor. Asbestos, fears of hazardous contamination, and the challenge of drugs and vagrancy at the complex thwarted many attempts by the community to find productive new uses.

When Martinsburg secured a $400,000 EPA Brownfield Assessment Grant in 2015, the city conducted environmental investigations that found very little contamination other than limited asbestos. With this information in-hand, the city felt confident the property could be redeveloped. They re-zoned the property for mixed-use redevelopment, created a reuse concept plan backed by a market feasibility and proposed capital stack, and upgraded the infrastructure.

Removing these barriers enabled the community to attract an experienced development company from another state, which invested over $80 million to create the "Interwoven Lofts" with 387 luxury downtown residences and 5,000 square feet of retail and community amenities.

content.govdelivery.com/bulletins/gd/WVMARTINSBURG-2f99ed1

6. Engage Developers & End-Users to Help Close the Deal

Demand for reuse will vary depending on your community's real estate and labor market, site environmental conditions, developable area, and community support for reuse. You can attract private sector investment by assembling multiple properties to create an opportunity for a larger redevelopment. You can also spur developer interest by working with your state or territory's economic development office, evaluating market viability through outreach to the development community, and evaluating market viability. Localities can provide regular status and progress updates to interested parties and create a plan to manage long-term environmental expectations. To keep momentum, celebrate every project milestone and success!

From Contaminated Brownfield to Riverfront Health Insurance Headquarters

In 1937, city leaders decided to build a large coal-burning power plant on the Grand River in the middle of downtown Lansing, Michigan. The massive ten-story Ottawa Power Station was designed to be a testament to Lansing's success in the industrial age. However, stricter environmental regulations and unfavorable market conditions caused the plant to be decommissioned in 1992. The plant sat vacant for over a decade.

In the mid-2000s, a local developer learned that the *Accident Insurance Fund Company of America* was outgrowing its location and looking for a new headquarters. After a site visit, the insurance company and City came to a deal: if the municipality could rehabilitate the power site, the insurance company would move in. The project partners worked together to form a dedicated project team to tackle funding, development, and remediation challenges one step at a time.

Turning the former Ottawa Street Power Station into the *Accident Fund* headquarters is one of the largest power plant reclamations on record. When the $182 million project was completed in 2011, it had tallied over one million worker hours and retained and created 600 high-paying jobs.

A redeveloped Riverside Park in Detroit, MI.

Action 1 — Lead with Stakeholder Involvement

Encourage community stakeholders to be engaged in land revitalization efforts from the start.

Keys to Success

- Meaningfully engage affected and interested residents within the community and crucial supporters such as nonprofit organizations, community foundations, property owners, and potential developers.
- Involve anchor institutions such as universities, community colleges, health systems, youth organizations, advisory boards, the Chamber of Commerce, and major employers.
- Develop a shared understanding of the site, the local market conditions, and constraints to redevelopment.
- When ready, get regional, state, and federal officials involved.

How can our community do this?

Engage a broad cross-section of stakeholders to create initial interest and momentum. Build early-stage support by engaging the property owner and nearby owners and businesses, key public officials, community and neighborhood leaders, and others in the community to oversee and support the site reuse assessment and planning process. Focus on developing reuse plans and strategies that meet neighborhood needs. Consider creating a community stakeholder task force with advisory or decision-making roles to ensure that the public is engaged in the redevelopment effort. Hold meetings online and in-person at varying times to accommodate a range of schedules. Provide translation, remote access, childcare services, and small incentives to compensate community members for their time.

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 after 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 up the site reuse assessment with market information. Conduct a market study and feasibility analysis early in the process to help community stakeholders, potentially interested redevelopers, 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 such as access to healthy foods, childcare, and affordable housing. **Do not ignore them**. Redevelopment that does not help neighborhood residents can lead to strong opposition to a redevelopment proposal or exacerbate existing health and economic problems. Determine if and how the redevelopment of each brownfield site can address or help mitigate these challenges.

Action 2 — Create an Exciting and Realistic Reuse Vision

An appealing and flexible site reuse vision can spur investment and inspire community-backed solutions at sites that otherwise might remain vacant.

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 have mothballed the property for long periods of time or may have unrealistic expectations about property value.
- Develop a redevelopment concept plan and renderings to illustrate the vision and potential reuse for the site.

How can our 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 your community's vision for the property and are confident that the local government and affected neighborhoods will provide the support necessary to achieve the redevelopment goals.

Prepare concept plans and renderings to illustrate site reuse options. Visualize how the proposed redevelopment will look, and create renderings to illustrate opportunities. Include community spaces, public investments, and potential new or restored buildings. Use these materials to engage your community around the site reuse vision alternatives for the area, and share with potential funders, investors, developers and end-users. Create a briefing sheet or brochure[2] that summarizes your plan and lists gap funding needs, and distribute it widely.

Build support beyond the immediate neighborhood. Demonstrate how the project will benefit surrounding municipalities and residents. Demonstrate the project's viability with a plan for overcoming barriers and site designs that convey the vision. Engage with nearby institutions, foundations, and partner governments such as neighboring municipalities and the county. Keep your residents and community groups informed and involved in each step and provide regular updates.

An example of site reuse renderings from Chicopee, MA.

[2] Some examples of on-line briefing sheets: Norfolk Blue-Greenway and Huntington Brownfield Innovation Zone.

Action 3 — Support Resilient and Sustainable Benchmarks for Revitalization

Brownfield sites can be designed and reused to help your community meet local resiliency and sustainability goals.

Examples of site reuse approaches that support resiliency and sustainability include green infrastructure to help manage stormwater on-site, waterfronts that handle flooding events, energy-efficient buildings and water-efficient landscaping, access to renewable power sources, urban trees to give shade, and green recreation spaces for the community.

Keys to Success

- Incorporate resilient and sustainable design approaches from project start. Many of these approaches have become best practices for redevelopment, and you can procure technical expertise to help you.
- Use local zoning or development laws to require or incentivize private sector redevelopers to use such approaches.
- Identify and emphasize how these more sustainable approaches can save operating costs and boost community support for reuse.

How can our community do this?

Designing resilient and sustainable approaches into the project at early-stage can save money and optimize short- and longer-term benefits. Resilient and sustainable approaches can reduce energy use and waste, use cleaner and lower-cost power sources, reduce stormwater through green infrastructure and urban trees, increase resident and worker health and productivity, and connect the revitalization to broader community assets in walkable, transit-oriented approaches. These approaches are difficult to retrofit-in after a site is developed.

Consider educational materials from EPA's Green Infrastructure, Climate-Positive Design Guidebook, U.S. Green Building Council and Groundwork USA[3]. When procuring design and engineering consultants for brownfield redevelopment, or coordinating with private sector developers on these efforts, consider a team with solid experience in resilient and sustainable approaches.

Seek meaningful community input. Invite community members and leaders to sit on advisory committees, hold public meetings in community buildings in the neighborhood, and ensure meetings are accessible to individuals with limited English proficiency, physical disabilities, and varying work schedules.

Let your community, neighborhood, and stakeholders lead by sharing what types of resiliency and sustainable project outcomes are important to them. Use site reuse design to reflect their goals and demonstrate how those outcomes can be achieved safely via brownfields reuse.

[3] These educational sources are not endorsed by the US EPA and are not hosted on the US EPA's website.

Action 4 — Create a Resource Roadmap

Successful brownfield revitalization often requires major funding to address the costs of cleanup and redevelopment, particularly when compared to the costs of developing on an undeveloped site (aka a "greenfield") outside the community. While there are a tremendous number of federal, state and other grants, subsidized loans and other resources for revitalization, pursuing these funding sources can be incredibly challenging.

A "Resource Roadmap" is an approach that helps identify and organize possible funding sources. The Roadmap is a list of many discrete, smaller, and interrelated projects that together form the larger redevelopment project, and then matching those project components and phases to specific funding targets. Creating this document helps to identify and confirm local priorities, align your community priorities with available resources, and establish an organized approach to pursuing and leveraging funds into an effective capital stack.

Keys to Success

- Define the specific project components for each phase of the brownfield redevelopment.
- Estimate costs and identify the best funding sources for each project component.
- Create a chart or matrix with this information, organized by project component and phase.
- Sequence and match each project component and phase to specific funding sources, then weave together the projects into the overall vision.
- Update the Resource Roadmap as funding commitments are pursued and secured.

Your community's efforts should focus on applying for the grants you are most competitive for. To do this, your community will need an organized strategy to identify the right grant programs to meet specific revitalization needs.

Once your community has defined revitalization goals and identified individual brownfield project components and phases, it is time to develop a Resource Roadmap.

Be strategic about which funding to pursue. Going after every grant opportunity for which your community may be eligible is a guaranteed way to waste staff time and resources.

How can our community do this?

Confirm priority projects: Confirming revitalization priorities will help your community determine how to allocate time and resources, pursue external funding, make asks to federal, state and other funders, and set the right expectations.

Delineate project components and estimate costs: For major projects, it is usually very difficult to obtain grants and other resources that cover all costs at once. Consider instead breaking up the project into discrete, smaller components and phases. Once components are identified, the project team should establish estimated project costs for each project component.

Identify and align funding sources for project components: Redeveloping brownfields requires your community to identify and leverage a mix of federal, state, philanthropic, and/or private funding and financing to get projects done. Communities should set aside time to research upcoming and available funding resources that align with their project needs. After creating a comprehensive list of resources, your team should narrow down the list and identify which grants and funding resources you community will be most competitive for.

Your community can assess how competitive you might be for a grant by looking at prior year grant guidelines and projects proposed by previous awardees.

Prepare for grant writing: Identifying upcoming grant opportunities before they open gives your community time to best prepare. Preparation activities include deciding who will write the grant proposal, deciding what outreach materials you need to create, finding matching funds or other resources to leverage, securing letters of support from partner organizations, and getting regional/state backing to help make your application as competitive as possible.

Action 5 — Remove Barriers to Brownfield Redevelopment

Before redevelopment can move forward, the project must meet local requirements such as building codes, zoning restrictions, and height and location restrictions. It must also gain the approval of local planning commissions and permit authorities at the local, county, and/or state government levels.

Project funders or financers may also have additional lending requirements.

Often, these administrative hurdles are easier to address when building on an undeveloped greenfield compared to redeveloping a potentially contaminated brownfield. A greenfield site is closer to a "blank slate," usually unburdened by common challenges found on brownfields (e.g., demolition of existing structures, asbestos abatement, historic preservation concerns, constrained developable area, or poor access issues, etc.).

Brownfield sites are more appealing to buyers, developers and 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.

To help clear the way for brownfields redevelopment, your community can work proactively to address and remove many of these barriers. Your efforts will help make the site as "shovel-ready" as possible.

Keys to Success

- Address environmental contamination and tackle problems at the site/surrounding area.
- Plan, design and even construct municipal infrastructure solutions.
- Expedite the zoning, regulatory, permitting and approvals for expected reuses.
- Maximize flexibility by assembling properties when necessary.
- Create the brownfields revitalization plan.
- Lead with public investment to leverage additional funding.
- Develop a site disposition strategy.

How can our community do this?

Address environmental contamination. Perform Phase I (and if needed, Phase II) environmental site assessments to determine whether environmental contamination at levels of concern exists. If so, characterize and quantify the risk from contamination.

Once the nature and extent of contamination and the desired reuses are known, work with state or Tribal government officials, and environmental professional consultants, to develop a remedial plan to clean up the site so it is safe for future reuse.

Site assessment activities can be supported by EPA (via a Targeted Brownfields Assessment or Assessment Grant) or through your State or Tribal Response Program. If the site requires cleanup and is owned by your local government or a non-profit organization, consider whether the site owner is eligible for an EPA Brownfield Cleanup grant to help cover remediation costs. Also research whether an insurance policy exists for the site; if so, it could provide resources for remediation.

If your locality is arranging to purchase the site, ensure you obtain bona fide prospective purchaser defenses to environmental liability[4] by conducting "all appropriate inquiry" (AAI)[5] due diligence before you take title. **For the environmental liability protections to take effect, Phase I all appropriate inquiries must be conducted within 180 days or less before site acquisition[6].** Consider whether purchasing environmental insurance can help with risk transfer.

If the private sector plans to buy the brownfield site, your local government team can help them understand those same bona fide prospective purchaser / all appropriate inquiry liability protections. Whichever entity will buy the site - e.g., the locality, an economic development entity or land bank, nonprofit or a private sector redeveloper, or others - that party should strongly consider entering the site into your state's brownfield voluntary cleanup program, which can provide further liability protections.

Tackle problems at the site and surrounding area. When blighted buildings or lots on or near brownfields show challenges of crime, vagrancy, code violations or other stigma, a new site redevelopment plan will not magically eliminate these problems. Tackle these issues proactively to better support residents and demonstrate project commitment to prospective purchasers/future site users.

Plan and address infrastructure issues. Updating and improving infrastructure will boost the prospects for brownfield revitalization. Identify the type of infrastructure that will be an asset for revitalization, and where existing infrastructure may be compatible or incompatible with site reuse plans and prospects. Partner with state and federal agencies, financing entities, and the private sector to design and build improvements to infrastructure systems. Pay attention to necessary road and sidewalk connections, water, wastewater, and stormwater infrastructure upgrades, broadband infrastructure expansion, and ways to integrate parks and outdoor recreation amenities into redevelopment.

Many brownfields are already located near established roads, rail lines, waterfronts, 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 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 or Tribal, and federal government approval authorities to inform them about your community's brownfields reuse efforts, and ask for their support on needed approvals. If your community allows incentives for height, affordable housing, historic rehabilitation, resiliency, green building, or other approaches, make sure developers are aware of how they can improve the redevelopments using these incentives.

Maximize flexibility by assembling properties when necessary. When a single property is too small or too limited to realize the project's reuse goals, consider whether and how it can be combined with adjacent properties by your locality, nonprofit partners, or the private sector.

Pull the vision together with a brownfield revitalization plan. Develop a planning document that illustrates and discusses 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 to leverage additional funding. Understand which components of your project will require public investment before the project can attract private investment. Look for federal or state tax incentives or credits that can advance brownfields site cleanup and redevelopment activities. Available tax credits for low-income housing, historic rehabilitation, clean energy sources, or new market tax credits can help attract private investment.

Develop a site disposition strategy. Decide whether and how to transfer ownership of the property from the current owner in a way that provides value to both the seller and the buyer. A site disposition strategy can include property sale, ground lease, lease with option-to-purchase, or another approach.

[4]See Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) §101 provisions for defenses to environmental liability.

[5]To claim protection from environmental liability, entities must conduct AAI before acquiring the property and comply with all continuing obligations after acquiring the property.

[6]Please note, there are no exceptions or extensions to the 180-day timeframe.

Action 6 — Engage Developers and End-Users to Help Close the Deal

Once the redevelopment vision is set and site reuse barriers are removed, your community can amplify the project goals and generate interest by communicating frequently with potential developers, tenants or end-users who are seeking investment opportunities or space to locate. Keep in touch with potentially interested developers, and provide regular updates on the site reuse progress to help build momentum and support.

Keys to Success

- Share redevelopment scenarios that match market feasibility, and gauge potential interest from developers.
- Communicate your site reuse vision to generate market interest, even in weak market conditions.
- Properly explain and manage remediation and development strategy.
- Establish a long-term property management plan.
- Celebrate each success, big and small!

How can our community do this?

Share redevelopment scenarios that match market feasibility, and gauge potential interest from developers. Your community can gauge potential redevelopment interest by requesting preliminary, nonbinding statements of interest. This allows your community to learn more about potential opportunities and what is needed to achieve site reuse goals.

Communicate your site reuse vision to generate market interest, even in weak market conditions: Your community's efforts to reuse the site while sharing what makes your community great can create the buzz needed to generate interest from potential tenants or other end users. 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. Even if a developer comes on-board and the property is sold, continue to have stakeholders champion the goals of the reuse vision and continue to communicate through local networks.

Properly explain 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. When needed, take steps to help potential developers and investors understand and maintain remedial systems, conduct required monitoring, and follow institutional controls to ensure long-term stewardship of the site. A well-managed property will set the stage for future investments and long-term improvements in the project area.

Celebrate each success, big and small! Reflect with your community on what it took to move that brownfield site out of "stuck" status and into opportunity.

- Celebrate with groundbreakings and ribbon-cuttings.
- Thank key supporters, funders, other contributors, and keep them involved.
- Continue outreach through media and social media.

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

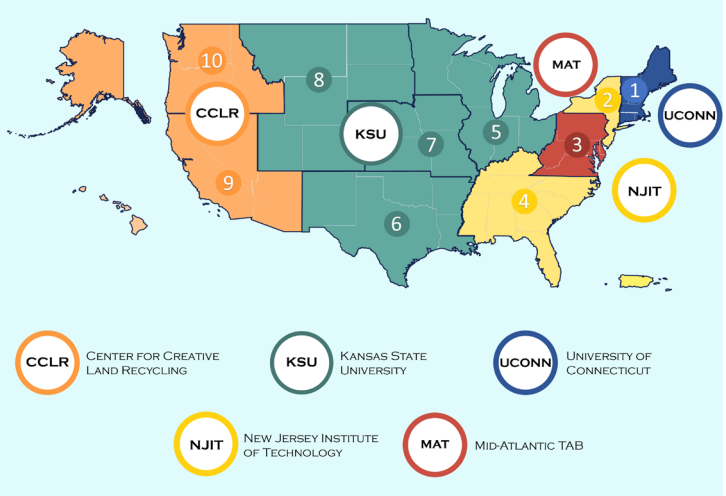
Nothing succeeds like success, so as your brownfield redevelopment moves forward, be sure to...

Celebrate Success!

Where can our community get more information or assistance?

Your community can take advantage of the substantial funding, resources, and technical assistance available to help you start addressing local brownfield sites. Free assistance from EPA includes:

- Technical Assistance to Brownfield (TAB) Providers
- Topic-specific technical assistance
- Targeted Brownfield Assessment
- Land Revitalization Technical Assistance
- Brownfields Grants



Technical Assistance for Brownfields (TAB) Providers

The experienced organizations listed below provide free support that includes helping your community get started with brownfields, creating a brownfields inventory, involving stakeholders, funding and resource identification, and grant writing assistance. Contact the TAB provider for your region.

EPA Region 1	University of Connecticut
EPA Region 2	New Jersey Institute of Technology (NJIT)
EPA Region 3	West Virginia University Research Corporation
EPA Region 4	New Jersey Institute of Technology (NJIT)
EPA Region 5, 6, 7, & 8	Kansas State University
EPA Region 9 & 10	Center for Creative Land Recycling (CCLR)

Nationwide Brownfields Technical Assistance Providers

The expert organizations listed below can assist your community with specific brownfield issues – for free. Topics and providers include:

Technical Assistance to Tribes	Kansas State University
Technical Assistance for Nonprofits	Groundwork USA
Brownfields Land Banking Strategies	Center for Community Progress
Brownfields Revitalization Anti-Displacement Strategies	University of Massachusetts, Dartmouth
National Brownfields Training Conference	ICMA
Technical Assistance to Brownfields Job Training	Tetra Tech
Brownfields Revolving Loan Fund Technical Assistance	Grow America

Targeted Brownfields Assessment (TBA) support

EPA provides contractor resources to help a community assess and characterize potential contamination at a brownfield site. This environmental assessment helps spur redevelopment.

Land Revitalization Technical Assistance

Land Revitalization Technical Assistance (LR TA) can help a community determine which types of brownfield site reuses are feasible, given local conditions (e.g., economic, infrastructure, social, and environmental site conditions), infrastructure availability, community site design preferences, and funding or financing resources. Understanding the community's goals for site reuse is an important part of making local decisions around how to assess, remediate and safely reuse the brownfield.

While land revitalization looks different in every community, many brownfields reuse planning activities can be supported through LR TA, including:

- Information gathering on brownfield site and local conditions
- Conceptual design
- Understanding implementation resources

LR TA is available as resources allow; contact the EPA Regional office.

Brownfields Grants

EPA provides brownfields grants to local, state, and Tribal governments and nonprofit organizations. Brownfields grant funds are often the catalyst that initiates brownfield activities at the local level, including helping to assess, clean up and revitalize specific sites while a community builds their brownfields program.

As of April 2025, EPA's investments have **leveraged over $41 billion in cleanup and redevelopment** funding from public and private sources and **leveraged over 280,000 jobs**. Visit the EPA Website to see all resources available, and sign up the EPA's Listserv to be notified when there is an open grant competition.

Types of Brownfields Grants

- **Assessment:** Grant to investigate and assess brownfield properties, for revitalization and reuse planning, 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.
- **Cleanup:** Grant for cleanup of specific brownfield sites that are owned by the applicant.
- **Multipurpose:** Grant for assessment, planning and cleanup activities at one or more brownfield sites within a target area, combined into one grant award.
- **Revolving Loan Fund:** Grant to capitalize a revolving loan fund can support brownfields cleanups.
- **Job Training:** Grants to recruit, train, and place unemployed and under-employed residents from brownfield areas, preparing them with environmental job skills needed to secure full-time, sustainable employment in various aspects of hazardous and solid waste management and within the larger environmental field.
- **State and Tribal Response Program:** Awarded annually to eligible states, Tribes and territories to establish and enhance existing environmental response programs.
- **CERCLA Section 128(a) Technical Assistance Grant (TAG) –** TAG is a cooperative agreement that provides up to $20,000 for small communities, tribes, rural, or disadvantaged areas for training, research, and technical assistance to facilitate the inventory, assessment, remediation, community involvement, or site preparation of brownfield sites.

Additional Support

- The EPA has a variety of publications, including guides, success stories, and tools that communities can use to address specific brownfields-related issues and challenges. See the Land Revitalization website. Helpful guides include:
    - 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.

      Revitalization-Ready guide describes how to move towards redevelopment of the contaminated, potentially contaminated, idle and underused properties in your city or town – and turn them into thriving public spaces.

      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.
- The overall cost of revitalizing a brownfield site is usually higher than grant funds provide. If a site in your community requires public or private financing, consider how loans, bonds and tax tools can support the project. The Council of Development Finance Agencies provides information such as the Federal Financing Clearinghouse, the State Financing Program Directory, an Online Resource Database, and sector-specific Resource Centers focused on finance.

What have others done?

Communities throughout the country have addressed brownfield challenges using some or all six actions. Here are a just a few examples[7]:

Forging Revitalization in Johnstown, PA

At the epicenter of the birth of the American iron and steel industry, the Cambria Iron Company was formed in 1852 in Johnstown, Pennsylvania. The company operated 12 miles of mills and production facilities along the rivers until finally shuttering in 1992. The closure resulted in the loss of 12,000 jobs, which immediately led to the structural bankruptcy of the City.

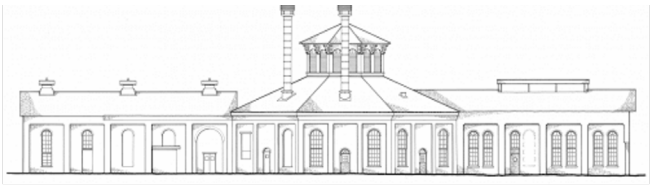
As the company that closed the Cambria Iron Works in 1992 was preparing to demolish the grand brick buildings at the heart of the complex in downtown, the Johnstown Area Heritage Association took action to preserve key structures.

Today, the City has emerged from structural bankruptcy, and the Cambria Iron Works is a National Historic Landmark and home to the Center for Metal Arts (CMA). U.S. EPA Brownfield Assessment grants enabled environmental site assessments and reuse planning. The CMA has secured $6.3 million in funding from the U.S. Department of Commerce's Economic Development Administration, the Appalachian Regional Commission, and the Commonwealth of Pennsylvania for a major restoration and expansion of artistic, cultural, and heritage tourism activities.

The CMA is a community of metalsmiths, artists, and students exploring new skills and mastering advanced techniques in the metal arts. It offers beginner through advanced forging and metalsmithing workshops to students from across the world. CMA specializes in technique-based workshops and providing the metals community with quality forging tools made with pride by in-house blacksmiths.

CMA attracts resident, regional, and international instructors, and the staff includes award-winning blacksmiths and designers, studio techs, trainers, and support staff. In 2024, the Artists-Blacksmiths Association of North America (ABANA) held its 50th anniversary in this community, bringing thousands of people from across the world to this heritage tourism destination. ABANA has now made its headquarters in Johnstown.

The CMA team, comprised of the Johnstown Redevelopment Authority, the City, and the innovative revitalization nonprofit Pittsburgh Gateways Corporation, is now pursuing a bold initiative to create a showcase for tourism, artisanship, and education that anchors a broader revitalization of Johnstown



Center for Metal Arts

The Octagon Blacksmith shop is the core of the Center for Metal Arts.

This complex of historic vacant buildings is now the Center for Metal Arts.

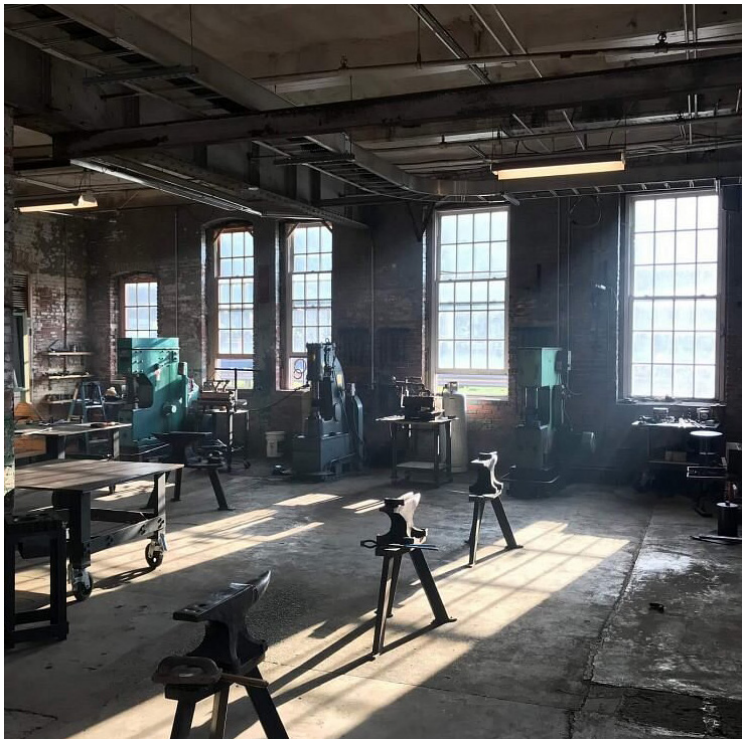
The Pennsylvania Governor and other officials bring resources to launch the Iron-to-Arts Corridor. Courtesy of the Office of Governor Tom Wolf.

[7]EPA Brownfields Grant funds are used for assessing, reuse planning and cleaning up sites; not for redevelopment. Projections for future reuse and redevelopment of these sites and their anticipated benefits are subject to change based on local conditions.

as a heritage tourism hub known as the "Iron-to-Arts Corridor." The team launched a revitalization of four iconic 19th Century buildings to become the "Cambria Ironworks Metalworking Campus & Village":

- The Octagon Blacksmith Shop will be the central blacksmithing workspace and educational center for the enterprise. This Blacksmith Shop houses and uses one of the largest and best collection of forging tools in the world, including hand tools, anvils, vices, tongs, hammers, swage blocks, top tools, and the original 10-ton air hammers, including the largest in the world.
- The Carpentry & Pattern Shop is where the CMA will house artist studios and shops and where metalworkers will be trained, jobs will be created, tourists will be attracted, and artisan sales and merchandizing can be conducted.
- The Rolling Mill Office Building will house offices and a metals research shop.
- A future phase will restore the Gatehouse for food and coffee concessions.

Boosted by brownfields revitalization, Johnstown forges ahead with heritage tourism and new, advanced manufacturing that builds on its heritage while innovating for the future.



Living classrooms and forging tools at the Center for Metal Arts. Courtesy to the Center for Metal Arts.

Planning for the Future in Casper, WY

It all started with the Old Yellowstone District (OYD) vision. The City of Casper, its residents, businesses, and community leaders dreamed of revitalizing OYD, which is adjacent to the downtown core and was once a thriving business area.

Located along the primary arterial to Yellowstone National Park, the Yellowstone Highway was lined with retail businesses. The businesses not only supported the commercial needs of travelers headed to the national park, but also supported a vibrant industrial area located immediately west of the district anchored by an Amoco Refinery.

The Yellowstone Highway became obsolete when 1st Street to the north was improved and designated the state highway. The new designation de-emphasized Yellowstone Highway, and traffic volumes declined. The resulting closure of the Amoco Refinery in 1991 and the shifting transportation patterns left the OYD with abandoned brownfields and empty stores.

The City took the lead to create a development plan for the 130-acre district, based on substantial community and stakeholder involvement. Since 2007, city and community leaders have remediated brownfields, laid out thoughtful reuse plans, incentivized and removed barriers to redevelopment, and engaged developers and end users to move forward on ambitious projects.

The City's vision for the future of OYD was to reinvent the area into a mixed-use, mixed-income area with retail, entertainment and restaurants, drawing on the beauty of the adjacent North Platte River to spur economic growth and development. The community-driven planning process identified the need to build housing to create vibrancy, increase multi-modal and street connectivity, integrate the North Platte River into design, deploy public art and landscape architecture, and incentivize private development and investment through financing programs and partnerships.

To align community expectations with future development, the City undertook a market study and deployed a form-based code. To remove barriers to redevelopment, the City identified and helped secure funding resources for redevelopment for businesses including:

- New Market Tax Credits
- U.S. Department of Housing and Urban Development (HUD) Section 108 Loans
- Wyoming Business Council Program Partnerships
- HUD Community Development Block Grant Funds as revolving loans
- U.S. Department of Commerce — Economic Development Assistance (EDA) grants

The City also undertook major transportation and infrastructure improvements for Old Yellowstone Highway, upgraded lighting, and built public open space including the David Street Station Plaza.

With the groundwork firmly in place, the City applied for and was awarded a 2016 EPA Brownfields Assessment Grant to assess properties for environmental contamination in the OYD, which kickstarted redevelopment success. To fully leverage funding from the EPA, Casper created a brownfield assessment program that allowed property owners to work with the City to assess their properties to encourage redevelopment. A fact sheet created by the City explained the grant program, brownfields, and how to use the funding for Phase I and Phase II assessments to kickstart development.

After years of careful planning, meaningful engagement, and local and community leadership, the City is now enjoying its success. New businesses are coming to life including restaurants, movie theaters, services, and the Nolan, a new mixed-use development adjacent to David Street Station Plaza. Approved in 2024 and under construction, the Yellowstone, a six-story, 104-unit apartment building designed and constructed by the Casper-based Brick & Bond Real Estate and Development and the Minneapolis-based Stencil Group. The new market-rate apartments will fulfill the very first goal of the OYD Plan - to build housing to create vibrancy. The City of Casper has a bright future ahead in the OYD, and the city's actions exemplify how your community can drive revitalization.

New, 104-unit apartment building will be an anchor at the Old Yellowstone District. Courtesy Brick & Bond Real Estate and Development, and the Stencil Group

The Wheeling, WV, Gateway Center

The City of Wheeling, WV (population 27,000) lies on the Ohio River in the foothills of the Appalachian Mountains at the juncture of West Virginia, Pennsylvania, and Ohio. The city became a major manufacturing center in the late 19th century due to its location along major transportation routes, including the Ohio River, the National Road, and the B&O Railroad.

Wheeling also became a gateway to the American west, due to the 1851 construction of the then-largest suspension bridge in the world. The suspension bridge allowed commerce and travelers to traverse across the Ohio River, now a National Scenic Byway.

The Wheeling Suspension Bridge was recently restored with an $18 million rehabilitation to become a pedestrian walking, heritage tourism, and community gathering space. The Bridge falls onto Wheeling's downtown Main Street and into the Wheeling National Heritage Area, which celebrates this industrial and transportation heritage. At the foot of the bridge on one side sits the historic Capitol Theater, a hub of cultural and artistic celebration. All these community assets will help Wheeling on its endeavor to become a major tourism and entertainment destination.

However, this Wheeling destination spot has been marred for years by a blighted and unsafe, 5-story budget hotel that has been the center of illegal drugs, vice, and crime. This hotel, in decrepit shape, raided by federal authorities, and shut down in 2023 under public nuisance order, completely blocks the view of the Wheeling Suspension Bridge from Main Street. It contains substantial asbestos pollution and the remnants of former coal mining activities.

The Wheeling community is excited to move forward in 2024 on the long-envisioned "Wheeling Gateway Center," where the blighted hotel used to be. The project will anchor the Main Street, provide a new home for the Wheeling Convention & Visitors Bureau plus a new WV Tourism Department outpost, and establish a heritage center highlighting the history and culture of the region. The project will also spur new outdoor recreation including a new events venue utilizing outdoor plazas overlooking the river and the restored Wheeling Suspension Bridge.

This new park on Wheeling's Ohio River will replace a long-vacant rail yard.

Wheeling will also create a walking connection from the Gateway Center to the established Wheeling Heritage Trail, an 18-mile rails-to-trails pedestrian and bicycle amenity that connects the river to the region. Along this Heritage Trail on the other side of downtown Main Street a short walk from the future Gateway Center is the Robrecht site. Robrecht is a vacant rail siding area impacted by PCBs, metals, and PAHs in the soils and groundwater that is now being transformed by the City of Wheeling into a magnificent riverfront park (see vision at right).

In partnership with the U.S. EPA and the WV Department of Environmental Protection, Wheeling secured one of the earliest EPA brownfield assessment grant awards in 1998. This initial success led to several additional brownfield grants. The revitalization of the budget hotel and rail siding sites began when Wheeling used a U.S. EPA Brownfields Community-Wide Assessment grant awarded to the regional community and economic development authority to conduct environmental assessments and remedial planning, asbestos inventories and cleanup plans, and other environmental due diligence to address contamination. The non-profit Wheeling Heritage Corporation secured a planning grant from the Appalachian Regional Commission POWER program which the community used for a market feasibility, planning, and

West Virginia Governor and Secretary of Tourism break ground at the future Gateway Center. Office of Governor Jim Justice.

site concept analysis that turned the vision into a viable plan backed by robust community support with over 6,200 people participating. With that plan, Wheeling was able to get strong backing from elected officials throughout the state as well as local stakeholders. The Wheeling Convention & Visitors Bureau used a federally-backed loan to acquire the hotel site and commence pre-construction soft costs in January 2023. The Gateway Center was out of the gate. See https://WheelingGateway.Tippingpointdev.com/.

Wheeling entered both the hotel site and the Robrecht site into the state Department of Environmental Protection's Brownfield Voluntary Remediation Program. This ensures that cleanup of these brownfields will be safe and protective of public health and the environment, and will protect against legal liability issues. Wheeling secured funding from a new state program, the "Dilapidated Properties" program to conduct asbestos abatement and demolition of the blighted hotel, and an EPA Brownfields Cleanup Grant to address contamination at the future Robrecht Riverfront Park. The remedial cap to address contamination at Robrecht will be parking lots, hardscape, soil fill, grading, and stormwater raingardens. The remedial cap will serve as the community's park.

The Wheeling team has since secured major resources for the construction of the Gateway Center, outdoor plazas and trail connections:

- $6.4 million in U.S. Department of Interior "Abandoned Mine Lands Economic Revitalization" (AMLER) grant funding (this downtown site sits on a former coal mines drainage area),
- $5 million in HUD Economic Development Initiative funding directed by congressional legislation,
- $2 million in Federal Highways Administration grant funding (pending in Congress and expected to be enacted at the end of 2024), and
- nearly $2 million in Appalachian Regional Commission POWER Grant.

Funds will be used to design, fabricate, and install the exhibits, displays, interpretive and educational materials, signage, and other materials for the visitor and tourism experience at the Wheeling Gateway Center.

Wheeling expects that this new Gateway Center will attract 175,000 tourists annually, bring $9.3 million in direct annual tourism spending, plus $21 million in induced spending, create and retain 87 direct and induced jobs, and boost state and local tax revenues by $320,000 each year.

The future Wheeling Gateway Heritage Center.

United States
Environmental Protection
Agency

Office of Land and
Emergency Management
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