



Plan for Brownfields Redevelopment Success

# Resilient Brownfields Planning

## Successful brownfields revitalization doesn't just happen. It's planned for.

Approach brownfields revitalization through creative, inclusive, and efficient planning activities.

- Early in the site selection process, consider the range of realistic site reuse options.
- Create a brownfields revitalization plan based on the community's need and vision, and site and surrounding area conditions such as environmental, economic, real estate market, assets, challenges, and vulnerabilities. These factors will directly influence how the site is assessed and remediated.

Planning activities focused on brownfields revitalization and as described in this fact sheet are eligible under an EPA Brownfields Assessment or Multipurpose Grant.

### Our community needs to:

- Ensure brownfields redevelopment is resilient and sustainable over the long-term to risks and uncertainties posed by extreme weather events and natural hazards.
- Identify where we can safely reuse brownfields as buffer properties to protect sensitive populations and vulnerable community amenities and investments.

### How planning for brownfield site resiliency can help:

Planning for extreme weather events and considering how site protectiveness will be affected in the short- and long-term by natural hazards is critical to ensure safe and resilient site reuses. This information is needed to inform early decisions about site assessment, cleanup and reuse activities.

### Influence on brownfields assessment, cleanup, and reuse:

Ensuring the safe reuse of the site over time requires identifying extreme weather trends and conditions such as increases in the frequency and severity of flood events, drought, extreme temperatures, and wildfires. Factoring these risk conditions into decision-making will influence how the site can be cleaned up and redeveloped, including design and placement of structures, treatment or monitoring systems, engineering controls and types of materials used.

### What is involved?

Resilient brownfields planning activities include:

- *Site-specific analysis*: integrate natural hazard data into brownfield inventories and screen for vulnerable sites across a community to prioritize resilient investments. Use the best available city, local or site-level future projections and sources such as the [Climate Mapping for Resilience and Adaptation \(CMRA\) Assessment Tool](#).
- *Area analysis*: identify how natural hazards will affect buildings and infrastructure surrounding the site, and how those hazards will affect site safety following cleanup. Document costs of adaptive measures, delays and/or inaction to help justify the additional investments needed to incorporate resiliency.
- *Visual tools*: develop maps, site renderings, etc. to demonstrate how the range of risks and vulnerabilities caused by exposures to extreme weather and natural hazards can be addressed or mitigated using resiliency approaches at and around the brownfield site.
- *Disproportionate impacts analysis*: consider how youth, disabled, health-compromised, low-income, or older residents could be negatively affected by extreme weather events, and use community engagement opportunities to seek brownfield assessment, cleanup, and reuse solutions that build their resilience.

### When to conduct?

Screen for natural hazard vulnerabilities on and around the site as early as possible during the site assessment and reuse planning process. Considering this information upfront will help your community make targeted, cost-effective assessment, cleanup, and investment decisions that will lead to more sustainable, resilient site reuse choices.

### What does it typically cost?

Costs may range from \$5,000 to \$15,000 if using free tools and in-house expertise to conduct initial, high-level analyses. Complex analyses involving consultant(s) may cost \$25,000 to \$50,000, depending on size of geographic area.

### Who should participate?

Initial, high-level analyses may be conducted by a local or regional agency (e.g., planning, public works department), resiliency-focused nonprofit, or university. Consultants with extreme weather data expertise, resilience planning/design, and/or engineering experience will be needed to conduct more complex analyses. Involve community members to help ground truth data.