

# Brownfields

## Cost-Effective Engineering Solutions for Property Redevelopment

### KEY Goals

Pursue and obtain “No Further Action” letters



Obtain “Covenant Not to Sue”



Integrate remediation requirements with future site use



Reduce potential future liabilities

### KEY Services

Conduct appropriate due diligence



Define the extent and nature of contamination



Obtain necessary permits



Develop and implement that integrate with development and community desired cleanup strategies

### Services

A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.



### Overview and Challenges

Several challenges make brownfields redevelopment unique compared to other real estate development projects. It is important therefore that the buyer conduct the appropriate due diligence prior to the purchase of a brownfield property. Due diligence involves a variety of activities in advance of purchasing a property as well as activities specific to the environmental components of the redevelopment.

Environmentally, identifying the presence and extent of contamination is essential to evaluating risk, limiting liability, and determining an appropriate reuse. If not already done, a Phase I environmental assessment should be performed to identify the presence of contamination that may exist on site. If required, a Phase II assessment may be conducted to sample or test for specific hazards that may have been identified in Phase I and to help develop a remedial action plan.

KEY staff are experienced in all aspects of Environmental Site Assessments,

including interviewing owners, operators and occupants; reviewing historical sources of information and federal, state, local government records; performing visual inspections; conducting multi-media sampling and analysis; interpreting geologic, hydrologic, and chemical data; and preparing site assessment reports.

In the event that additional action is required, KEY’s strategy is to:

- Conduct the appropriate, but minimum sampling and analysis activities needed to characterize the site accurately.
- Respond quickly to new information that is obtained during site activities to reduce repetitive and expensive sampling events.
- Select the best innovative technologies for the site under review.
- Actively pursue No Further Action letters.

## Overview of KEY Brownfield Projects

Background	State	Highlights	Project Driver
Former Wood-Treating and Coal Storage Facility	NJ	Successful petition for solidification of impacted source material vs. off-site hazardous disposal. Successful petition for MNA and passive NAPL recovery. Site is currently being used in support of Port Operations.	Brownfield
Former Wood-Treating and Coal Storage Facility	NJ	Key performed CQA activities during in-situ stabilization of 40,000 cu yds. of source material. Client received a No Further Action letter for groundwater. Site reuse is an intermodal terminal.	Brownfield
Coal Gasification and Chemical Refining Site	NJ	Design and CQA activities associated with a future use integrated remedy that included: a Barrier Containment System (15,314 lf slurry wall and 7,290 lf sheet pile wall), excavation and spread of 1 million cu yds. processed dredge material, on-site solidification of waste material and wetlands restoration. Selected remedy has left the site suitable for future development.	Brownfield
Metal Parts Manufacturing Facility	NJ	No Further Action Letter issued by NJDEP. Key was successful in providing its clients with the necessary regulatory approvals for divesting their property and reducing potential future liabilities.	ISRA
Former Oil Terminal	NY	Beneficial reuse of over 4 million cubic yards of various fill types, dredging and processed dredge material. KEY developed plans and obtained permits for reuse of dredge material to be used to raise portions of a 675-acre site above the floodplain. Industrial redevelopment is ongoing.	Brownfield
Former Wood-Treating Facility	OH	No further Action status was attained for groundwater and DNAPL based upon a demonstration of source immobility, dissolved plume stability and incomplete exposure pathway.	Ohio VAP
Chemical Manufacturing Facility	OH	Conducted probabilistic risk assessment and leachate modeling. Successfully obtained a No Further Action Letter and covenant not to sue.	Ohio VAP
Former Manufactured Gas Plant	PA	Risk assessment and site specific cleanup standards used to demonstrate acceptable risk. Obtained a release of liability. Property was sold to the Borough for use as "green space" for the community.	PA Act 2, Brownfield
Former Manufactured Gas Plant	PA	IRA activities allowed for multi-purpose site reuse including a Little League Field with adjacent parking lot, wetlands and a gas regulator station.	PA Act 2, Brownfield
Former Manufactured Gas Plant	PA	Removal of primary source MGP related constituents and reduction in potential site exposures. Successfully obtained a No Further Action Letter and release of liability.	PA Act 2, Brownfield
Former Industrial Ceramics Insulator Production Facility	PA	Key's evaluation enabled the developer to obtain financial assistance for redevelopment from the PA Department of Community and Economic Development under Pennsylvania Land Recycling Program.	PA Act 2, Brownfield, Industrial Sites Reuse Program (ISRA)

### KEY Value-added Services

KEY has responded to industry needs and developed an economically responsible approach to brownfields investigations.

- KEY staff considers all strategies to streamline the site investigation.
- KEY minimizes field mobilizations, while ensuring adequate data collection to define contamination and to support clean-up and redevelopment goals.
- KEY employs project managers with brownfields experience.
- KEY employs senior technical staff to support site-specific tasks to ensure that at every level in the decision process is technically and legally sound and all site activities are conducted safely.
- KEY staff have technical and regulatory experience working at sites of various industries including: chemicals, electronics, energy, manufacturing, mining,

metals, petroleum, real estate, pharmaceuticals, and transportation.

- KEY uses noninvasive geophysical methods to obtain additional site information minimizing expensive chemical sampling and analysis.



**Waterfront Brownfields**

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