

Brownfield Redevelopment



We see the big picture, the possibilities — comprehensive redevelopment services

The Brownfields Dilemma

Brownfields — abandoned or underused commercial or industrial sites — represent significant challenges to property owners and communities. Adverse environmental conditions such as contaminated soils and groundwater, vacant buildings with asbestos, and the presence of hazardous materials significantly reduce the value of property and, with it, development potential. These conditions burden owners with financial loss and liability. Lenders, developers, managers, municipalities, and others share the burden. The risk of assuming these liabilities can be so significant that properties remain undeveloped for decades.

That Was Then. This Is Now.

Times have changed. The regulatory setting has never been better than it is today for promoting brownfield cleanups. EPA's Brownfields Initiative and state Voluntary Cleanup Programs have paved the way for brownfield restoration, enabling these properties to be productively reused. Today, the ability to carefully plan land use and redevelopment options for impaired properties encourages the negotiation of reasonable risk-based remediation scenarios and allows the attainment of liability protection from the environmental regulatory community. "Turning Brownfields Green" can be a safe and profitable enterprise.

Turning Brownfields Green

For more than 50 years, AECOM has pioneered new methods and technologies to help business, industry, and government resolve difficult environmental challenges. Today, we are nationally recognized experts on money-saving, minimum risk solutions for environmentally contaminated sites. AECOM's "Turning Brownfields Green" program is based on our many years of "hands-on" site cleanups, plus regulatory negotiations that have saved property owners millions of dollars.

BROWNFIELD PRACTICE AREAS

FEDERAL/STATE GRANT WRITING ASSISTANCE

- Brownfield Area-Wide Site Assessment Grants
- Brownfields Pilot Site Assessment Grants
- Cleanup and Assessment Grants

TRANSACTION DUE DILIGENCE

- Building component evaluations
- Phase I/II Environmental Site Assessments
- Property upgrade/rehabilitation
- Site compliance evaluations
- Asbestos management

CIVIL ENGINEERING

- Civil site and utility design
- Facilities design/construction
- Surveying, mapping, and GIS

UNDERGROUND ENGINEERING

- Earth support systems
- Foundation design
- Geotechnical studies
- Groundwater control
- Tunnel rehab and design

CONSTRUCTION QUALITY MANAGEMENT

- Construction management
- Design-build
- General contracting

PROPERTY AND STRUCTURE SERVICES

- Asset improvements
- Condition assessments
- Structural forensics
- Vibration analysis and design

ENVIRONMENTAL MANAGEMENT

- Permits and regulatory reporting
- Compliance audits
- Environmental Management Systems/ Information Systems

- Regulatory support and negotiations

ENVIRONMENTAL RESTORATION

- Feasibility studies
- Regulatory navigation
- Remedial design/construction
- Risk assessments

WASTE MANAGEMENT

- Hazardous waste management
- Pollution prevention
- Waste reduction
- SPCC/SWPP documents

WATER AND WASTEWATER SERVICES

- Sewer system evaluation and rehabilitation
- Stormwater management
- Wastewater pumping and conveyance
- Water supply
- Water/wastewater treatment

TECHNICAL SUPPORT SERVICES

- Geophysical investigations
- Laboratory testing
- Non-destructive testing
- Site instrumentation
- Subsurface exploration



Brownfield Redevelopment *(continued)*

Key Brownfield Issues

Essential components of successful brownfield development include:

- **ACTIVE COMMUNITY INVOLVEMENT.** Successful redevelopment must be aligned with local plans for community growth and land use.
- **FINDING FINANCING.** Reduced liabilities under EPA and state programs are making financing available for brownfield redevelopment. Special arrangements such as tax increment financing, tax incentives, and grants are now available to jump-start brownfield redevelopment.
- **ACCURATE CLEANUP ESTIMATES.** Lenders, investors, and insurers must have firm remediation cost estimates to proceed with the transaction. Increasingly sophisticated tools are available to develop these estimates.
- **SUCCESSFUL NEGOTIATION WITH REGULATORS.** Agency approval of risk-based cleanups that are adapted to the future use of the property is critical to a profitable and successful brownfield redevelopment.
- **COST-EFFECTIVE AND EFFICIENT CLEANUP.** AECOM has found that innovative uses of proven technologies, such as on-site and *in situ* techniques, can substantially reduce cleanup costs and effectively manage risks.

AECOM Expertise

- **INNOVATIVE REMEDIATION OF CONTAMINATED SITES FOR RE-DEVELOPMENT.** AECOM is known for its end-focused innovative remediation solutions. Leveraging our extensive technical resources and project management expertise, AECOM helps owners convert brownfield liabilities into assets by designing and implementing adaptive site reuse plans that reduce costs.
- **RELIABLE COST ESTIMATES.** Having completed hundreds of remediation projects, we provide industry-leading expertise to reliably estimate the ultimate cleanup cost.
- **SKILLED AGENCY NEGOTIATION.** AECOM has a proven track record negotiating cost-effective site remediation solutions nationwide. Our stakeholder management and collaborative approach has saved our clients more than \$100 million in project cleanup costs.

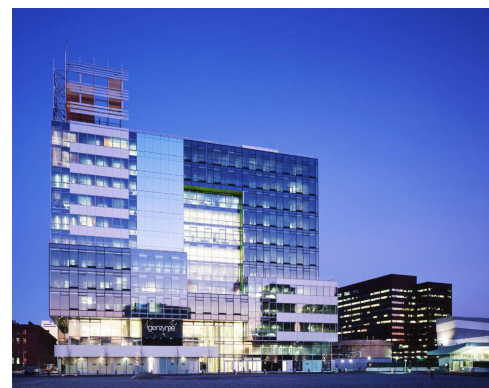
Integrated Services Through Account Management

AECOM is an engineering firm providing an integrated approach to engineering design, construction and environmental management in the commercial and industrial markets. For more than 50 years, AECOM has provided innovative yet practical solutions for a wide range of private and public clients. With more than 6,900 professional personnel, the firm has worldwide experience in a wide variety of Brownfield Practice Areas.

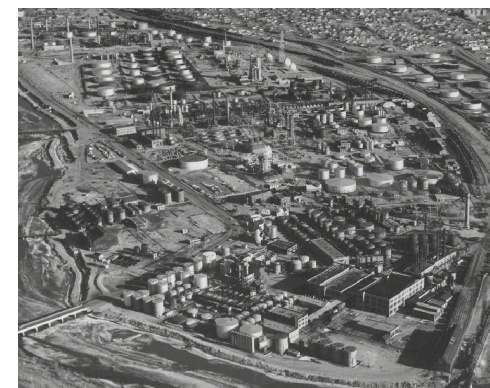
AECOM Brownfield Transformations



Former MGP Site



Life Sciences Corporate Office



Former Petroleum Refinery



Golf Course, River Park & Business Park



Flooded 14-acre Industrial Park



Vibrant Flood-controlled Public Space



Former MGP and Industrial Site



Entertainment Destination & Neighborhood



Former Hospital



Health Care Education Center



Former Scrapyard



University Rec Center & Sports Complex