

# Regenerative remediation



Reimagining remediation as a catalyst for renewal, combining economic analysis and regenerative practices to transform contaminated sites into sustainable, community-strengthening assets that provide ecological uplift.

## Areas of Expertise

- Stakeholder engagement
- Sustainable remediation
- Landscape architecture
- Economics
- Climate change resilience planning
- Nature-based solutions

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## Overview

Regenerative Remediation is a transformative approach to environmental cleanup that integrates economic analysis, restoration, sustainability, and community engagement. Unlike traditional remediation, which focuses primarily on risk reduction, regenerative remediation seeks net positive outcomes, revitalizing ecosystems, empowering communities, and unlocking long-term value from formerly impaired properties.

### Regenerative Remediation is more than a technical innovation—it’s a mindset shift.

It challenges us to see contaminated sites not as scars, but as opportunities for healing and renewal. It results in novel multi-disciplinary collaborations between economists, environmental engineers, scientists, and planners. **By integrating restoration, sustainability, redevelopment, and community engagement, we can create outcomes that are restorative, resilient, and regenerative.**

For owners and operators of legacy sites, combining economics, ecology, and community engagement can reduce liabilities, advance growth potential, unlock redevelopment opportunities, and support community and environmental commitments.

## Our approach

For site owners and operators, whether managing a single property or a global portfolio, remediation and closure can be part of a comprehensive value creation strategy:

- Articulate the cost of inaction
- Reduce liabilities while streamlining regulatory approvals

- Improve environmental outcomes through nature-based solutions and expand market opportunities
- Generate long-term income and a sustainable energy supply
- Leverage redevelopment as a stimulus.

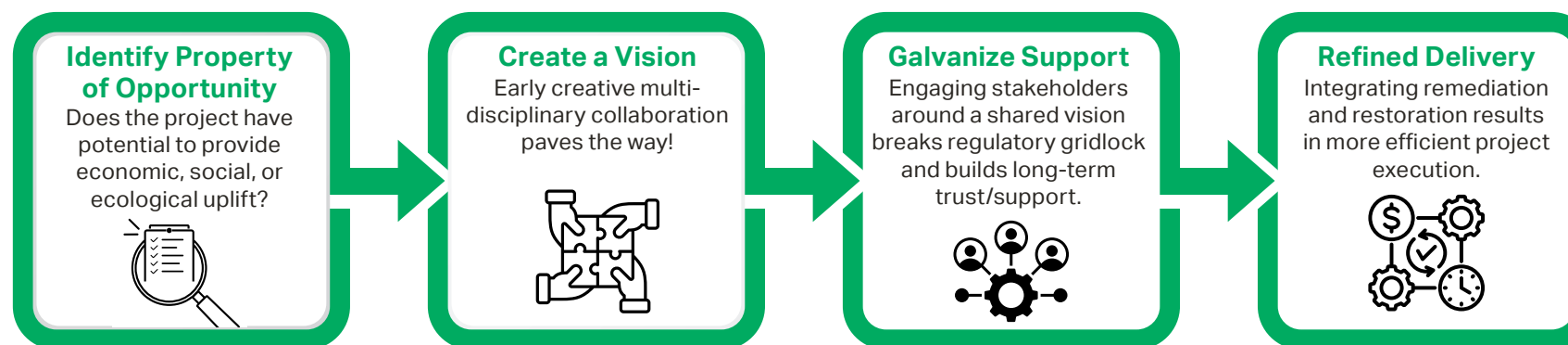
## Areas of expertise

**ARTICULATE THE COST OF INACTION.** Delaying site closure can result in ongoing monitoring costs, community health impacts, ecosystem degradation and reputational damage. Regenerative remediation uses data and analytics to quantify these, translating risk into measurable opportunity gains.

**REDUCE LIABILITIES WHILE STREAMLINING REGULATORY APPROVALS.** Regenerative remediation helps reduce long-term liabilities by aligning cleanup strategies with regulatory mandates and future land use goals. At Taiwan’s Kaohsiung Oil Refinery, advanced treatment methods and real-time data analysis enabled regulatory compliance while reducing long-term exposure risks. In response to a national brownfield revitalization policy, the project demonstrated how regenerative remediation can meet mandates and unlock future value. We turned a contaminated site into a redevelopment-ready asset—originally projected to take 20 years—in just five.

**GENERATE LONG-TERM INCOME AND A SUSTAINABLE ENERGY SUPPLY.** Sites once considered financial drains can become revenue-generating assets. The Environmental Protection Agency’s (EPA’s) RE-Powering America’s Land Initiative has identified more

## Steps to Success



## COMMERCIAL VIABILITY

AECOM helps clients evaluate commercial viability by clarifying return on investment, identifying risk mitigation strategies and aligning remediation decisions with market opportunities and regulatory incentives.

# Regenerative remediation *continued*



than 190,000 contaminated or underutilized sites with potential for renewable energy development. "Brightfield projects"—solar or wind installations on remediated land—generate long-term income and sustainably increase energy supplies. These projects also benefit from streamlined permitting, tax incentives and increased community support, making them economically and environmentally sound. Beyond renewable energy, remediated sites can support data centers, logistics hubs, mixed-use redevelopment, and other long-term uses that generate durable economic value which aligning with community goals.

**IMPROVE ENVIRONMENTAL OUTCOMES THROUGH NATURE-BASED SOLUTIONS AND EXPAND MARKET OPPORTUNITIES.** Regenerative remediation can incorporate nature-based solutions (NbS), restoring natural function and resilience to stranded land assets. Solutions like bioremediation and phytoremediation reduce the environmental footprint of remedial actions, restore ecosystems, decrease contamination risks and build climate resilience. Tapping into new nature-based markets and revitalizing otherwise unusable land offsets disposal costs and reduces greenhouse gas emissions by displacing long-term maintenance costs and more carbon-intensive materials.

**LEVERAGE REDEVELOPMENT AS A STIMULUS.** Investing in brownfield redevelopment stimulates local economies, attracts private investors and expands municipal tax bases. In East Newark, New Jersey, U.S., we partnered with chemical company BASF Corporation to design and oversee the transformation of a 150-year industrial property into a clean, safe and accessible urban park. Our natural resource economists, scientists and engineers measured the park's economic ripple effect: increased real estate values, strengthened climate resiliency, and improved public safety and well-being. Our economic analyses demonstrated tangible tax revenue increases for the local municipality, assuring stakeholders that the project is a strategic tool for urban renewal.

[Learn more about how regenerative remediation turns closure into opportunity](#)

