


2009

# INFRASTRUCTURE FACT SHEET



Redevelopment of brownfields sites over the past five years generated an estimated 191,338 new jobs and \$408 million annually in extra revenues for localities. In 2008, however, there were 188 U.S. cities with brownfields sites awaiting cleanup and redevelopment. Additionally, federal funding for “Superfund” cleanup of the nation’s worst toxic waste sites has declined steadily, dropping to \$1.08 billion in 2008, its lowest level since 1986.

WATER AND ENVIRONMENT

FACTS  
ABOUT

# HAZARDOUS WASTE

# RAISING THE GRADES SOLUTIONS

THAT WILL WORK **NOW**

**A** = Exceptional  
**B** = Good  
**C** = Mediocre  
**D** = Poor  
**F** = Failing

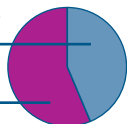
AMERICA'S  
INFRASTRUCTURE  
G.P.A.

**D**

## ESTIMATED 5-YEAR FUNDING REQUIREMENTS FOR HAZARDOUS WASTE AND SOLID WASTE

Total investment needs  
**\$77 BILLION**

Estimated spending  
**\$33.6 BILLION**  
Projected shortfall  
**\$43.4 BILLION**



- ★ **REAUTHORIZE** federal Superfund taxes on chemicals, petroleum, and corporations or create another federal funding mechanism to revive the Hazardous Substance Superfund cleanup program and remove the cost of cleanup from the general fund;
- ★ **IMPLEMENT** legislation—incentive programs, for example—that considers environmental costs and encourages the reduction of hazardous waste at the source and the design of reuse programs;
- ★ **ENACT** the Brownfields Revitalization and Environmental Restoration Act to help localities redevelop brownfield sites;
- ★ **CONTINUE** to fund existing federal programs to finance the revitalization of America's brownfields;
- ★ **CREATE** a Brownfields Redevelopment Action Grant program within the Environmental Protection Agency to provide investment funds for local governments that would allow private investments to be leveraged in order to help preserve farmland and open spaces.

## CONDITIONS

### Superfund

Since Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) in December 1980, corrective action has been taken at thousands of contaminated sites across the country. However, nearly 30 years of federal attention to cleaning up contaminated sites has done little to reduce the problem. As of November 2008, 1,255 sites were listed on the National Priorities List (NPL), down only slightly from 1,273 sites in 2004, and another 9,957 sites were awaiting evaluation for possible listing.<sup>3</sup>

While the number of sites remains relatively constant, federal funding during the last 20 years has systematically decreased. When it was enacted, CERCLA established the Superfund Trust Fund, which was funded by a corporate environmental income tax and excise taxes on petroleum and specified chemicals. The trust fund received approximately \$1.5 billion per year before the legislative authority authorized to collect the taxes expired on December 31, 1995. While there has been some interest in reinstating the taxes, there has been little legislative action. Superfund cleanup is currently funded through the ongoing appropriations process.<sup>4</sup>

Between fiscal years 1981 and 2005 Congress appropriated \$29.3 billion to aid in the cleanup of hazardous waste sites under Superfund. Billions more were

appropriated to clean up leaking underground storage tanks and brownfields sites. The states have also contributed billions to hazardous-waste cleanups. Even as the need has grown, annual congressional appropriations for Superfund have steadily declined in recent years after topping \$2 billion in fiscal year 1998. The appropriation for both fiscal years 2007 and 2008 was \$1.08 billion, the lowest level since fiscal year 1986.<sup>2</sup> Higher funding levels have been proposed in the last two years but have not been enacted because of incomplete congressional appropriations processes, which result in the same level of funding being carried on from the previous year.

The Environmental Protection Agency's (EPA) 2004 report *Cleaning up the Nation's Wastes Sites* estimated that as many as 350,000 contaminated sites will require cleanup during the next 25 years. Assuming that current regulations and practices remain the same, it could cost as much as \$250 billion to clean up those sites.<sup>5</sup> No updated data have been released, but current cleanup costs could be much higher when inflation is taken into account.

Meanwhile, the pace of cleanups is slowing. For much of the 1990s the EPA averaged more than 70 construction-complete sites per year. However, since 2000 the number of newly completed sites has decreased dramatically. In fiscal year 2003 there were just 40 NPL sites deemed to be complete, and in 2007 and 2008 the EPA reported that only 24 and 30 sites were completed, respectively.<sup>6</sup>

## RAISING THE GRADES CASE STUDIES

### AUSTIN, TX ★ Grove Landfill

In 2004, the Rhizome Collective received a \$200,000 Brownfields Cleanup Grant from the EPA to remediate and restore the 9.8-acre Grove Landfill site. The site included a former landfill, which was open from 1967 to 1970 and then subjected to illegal dumping for approximately 15 years following its closure. Subsequent tests revealed the presence of harmful chemicals and other materials. Of Austin's 656,562 residents at the time, 39,105 lived in the area surrounding the Grove Landfill site. The collective implemented a green remediation strategy for the cleanup, which included salvaging wood scraps and concrete to be used for erosion control, chipping wood to create mulch for recreational trails, recycling 31.6 tons of metal, salvaging concrete to be used as fill for building infrastructure, and powering equipment with biofuel generators and photovoltaic panels. Following the cleanup, the site was turned into an environmental education park that promotes sustainable concepts.

### Brownfields

Across the country, hundreds of thousands of former industrial and commercial sites potentially containing hazardous waste sit idle awaiting remediation. Most of these abandoned or underutilized facilities are in urban areas. Shifts in resources, industries, technical expertise, and wealth are the primary cause for environmental degradation and loss of economic viability. Remediated brownfield sites, however, can provide improvements in health and public safety, environmental benefits, and economic development.

According to a survey by the U.S. Conference of Mayors, there were 24,896 brownfield sites awaiting redevelopment in 2008 in 188 cities nationwide. In addition, more than 150 cities had successfully redeveloped 1,578 brownfield sites, return-

More than 150 cities had successfully redeveloped 1,578 brownfield sites, returning more than 10,000 acres to economic productivity in 2007. These actions resulted in \$408 million in new municipal revenues in 62 cities and more than 191,338 jobs—a dramatic increase from \$90 million and 83,000 jobs in 2004.

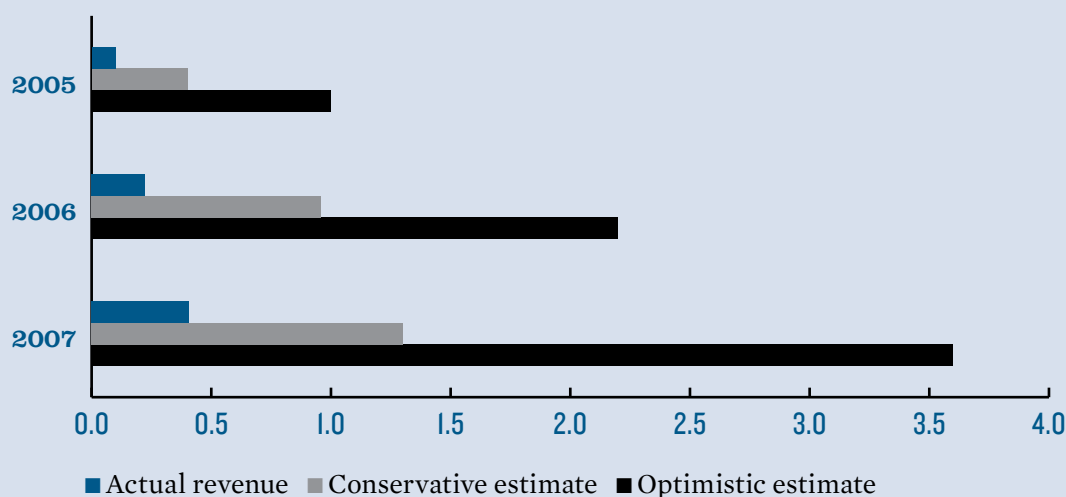
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Of the 188 cities with idle brownfields, 148 reported that a total of 576,373 new jobs and as much as \$1.9 billion annually could be generated if the sites were redeveloped.<sup>1</sup>

The country's mayors identified insufficient funding, environmental assessment, lack of money for demolition and liability concerns as the leading obstacles to redevelopment. Currently, 3,282 sites in 150 cities have been "mothballed"—designated by developers or owners as having no chance of redevelopment.<sup>1</sup>

**FIGURE 3.1** ★ Tax Revenue from Brownfields Redevelopment in Billions of Dollars



The nation's mayors estimate that with additional funding for brownfields redevelopment, far more tax revenues could be realized.

**SOURCE** US Conference of Mayors, Recycling America's Land: 2008 Brownfields Redevelopment Report



**SEQUIM BAY, WA ★ Sequim Bay Estuary Restoration**

After a century of sitting at the hub of the area's timber industry, the Sequim Bay Estuary in northwest Washington State suffered from sediment pollution and habitat degradation. After receiving a Brownfields Cleanup Grant from the EPA and partnering with state, local, and private stakeholders, the Jamestown S'Klallam Tribe began restoring the estuary's natural features as part of its plan to clean up the entire Sequim Bay. The project removed 99 creosote pilings that were used to store timber waiting to be shipped out to sea as well as contaminated soil and solid waste, restoring an 82-acre area to its natural ecosystem. Since the cleanup's completion in 2005, the area is experiencing increased economic benefits from tourism and fishing.<sup>7</sup>

*Photo courtesy of the Jamestown S'Klallam Tribe.*



## PROVIDENCE, RI ★ Brownfield Cleanup

Decades of industrial activity in a downtown area of Providence contaminated a seven-acre site with lead, arsenic, and other hazardous substances. In 2006, the nonprofit educational corporation Meeting Street secured a \$200,000 Brownfields Cleanup Grant from the EPA, which paid for site remediation. The group also secured funding from government and private sources to build a new educational facility. The center, built to Leadership in Energy and Environmental Design (LEED) standards,



includes an elementary school and a middle school as well as special services for disabled and low-income students and other amenities available for community use.<sup>7</sup> *Photo courtesy of the U.S. Environmental Protection Agency.*

## RESILIENCE

In order to be resilient, brownfield sites must be sustainable, ensuring that needs of both current and future generations are met. Future investments must address innovative technologies, security, and life-cycle maintenance of the sites. A resilience strategy that addresses both disposal and cleanup of existing sites can help improve public perception in accepting the creation and location of new waste disposal facilities.

## CONCLUSION

Hazardous waste sites across the country hold enormous potential for economic growth and community redevelopment. However, we risk losing access to those benefits if funding is not increased and the pace of remediation is not accelerated. To restore these sites to a safe and usable condition, both public and private organizations must work together. ★



## SOURCES

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- 2 Budget of the United States Government, Government Printing Office Access: [www.gpoaccess.gov/usbudget/browse.html](http://www.gpoaccess.gov/usbudget/browse.html).
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- 4 U.S. Congressional Research Service, *Superfund Taxes or General Revenues: Future Funding Issues for the Superfund Program*, February, 2008.
- 5 U.S. Environmental Protection Agency, *Cleaning up the Nation's Waste Sites*, 2004: [www.clu-in.org/download/market/2004market.pdf](http://www.clu-in.org/download/market/2004market.pdf).
- 6 U.S. Environmental Protection Agency, Superfund National Accomplishments Summary, 2008: [www.epa.gov/superfund/accomp/numbers08.htm](http://www.epa.gov/superfund/accomp/numbers08.htm).
- 7 U.S. Environmental Protection Agency, Clean-up Success Story Pages: [www.epa.gov/brownfields/success/success\\_cleanupss.htm](http://www.epa.gov/brownfields/success/success_cleanupss.htm).