

Hazardous Waste Removal Infrastructure

Section 6

The term “hazardous waste” refers to substances that have the potential to increase deaths or serious illnesses, or to pose a hazard to human health when improperly stored, transported, or otherwise disposed of. Most hazardous wastes are the unwanted by-products of industrial processes. Some are generated by small businesses in cities and towns—for example, dry cleaners, auto repair shops, and exterminators. Hospitals and power plants also contribute to the hazardous waste disposal problem.

Legislation aimed at cleaning up hazardous waste was first enacted in December 1980. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) initially targeted 400 high-priority hazardous waste sites for clean up.

CERCLA was enacted in the wake of the discovery of toxic waste dumps such as Love Canal and Times Beach in the 1970s. It allows the Environmental Protection Agency (EPA) to clean up such sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-lead cleanups.

Since its inception nearly 30 years ago, the Superfund Trust Fund has received more than \$40 billion to support hazardous waste cleanups. Billions more were appropriated to clean up leaking underground storage tanks and brownfield sites. States have also contributed billions to hazardous waste clean-ups.



Progress toward cleaning up toxic chemicals and other hazardous substances has been “sluggish,” according to the American Society of Civil Engineers (ASCE). Monies allocated to the Superfund have declined steadily since 1998, and currently represent a 40-percent reduction in real purchasing power from 1980s levels.

Meanwhile, the number of contaminated sites on the National Priorities List (NPL)—EPA’s official record of the most hazardous sites in the nation—has increased to 1,500. An additional 20,000 sites need to be cleaned up but are not on the NPL because they fall under the assessment of other federal cleanup programs, according to the Congressional Research Service.¹

Brownfields

Abandoned industrial properties where expansion or re-development is complicated by environmental concerns are called “brownfield sites” in environmental parlance. While less severely contaminated than Superfund sites, the sheer number of them—600,000 according to one estimate—is troubling.

Brownfield sites are usually located in a city’s industrial sections or on mountains containing abandoned factories, commercial buildings, or other previously polluting operations. Small brownfields also may be found in many older residential neighborhoods. For example, dry cleaning establishments or gas stations that produced high levels of subsurface contaminants during prior operations, and the land they occupied, might sit idle as brownfields.

Many contaminated brownfield sites sit unused for decades because the cost of cleaning them to safe standards is more than the land would be worth after redevelopment. However, redevelopment of brownfield sites has become more common

in the first decade of the 21st century, as developable land grows less available in highly populated areas.

Infrastructure Supply v. Infrastructure Demand

ASCE's 2005 Report Card gave the nation's hazardous waste cleanup infrastructure a D. This grade has been disputed, however:

While the nation's financial commitment to cleaning up hazardous waste sites might have earned a poor grade from ASCE, the infrastructure needed to conduct those cleanups is in much better shape," explains

Case believes that "There are more people able to do the cleanups than there are people willing to pay for the cleanup work."

The hazardous waste remediation industry has invested billions of dollars in acquiring modern equipment, training personnel, and obtaining the necessary permits to conduct environmental cleanups, but the industry has encountered reduced state and federal funding for such programs "across the board for the past eight years," says Case.

Public Support Slipping

Public support for cleaning up hazardous waste dumps has declined in recent years, according to public opinion surveys. A slowing economy, terrorism, health care costs, and drug abuse have displaced environmental concerns in the minds of most Americans.

Attitudes toward environmental activism vary greatly with race and ethnicity, however.

For more than two decades, the Gallup and Eagleton polls have

asked if environmental protection should be a priority even if it might reduce economic growth. In March 2003, less than half (47 percent) of those surveyed nationally said it should. In March 2000, 70 percent responded in favor of the environment; in March 1990, 71 percent chose environmental protection over economic growth.

Even in 1992, when U.S. unemployment spiked at 7.5 percent, 58 percent chose the environment.

An important finding of these surveys is that middle-aged, white, college-educated males are the

Hazardous Waste by the Numbers

38.3 million tons of hazardous waste generated (2005)
 1,500 contaminated sites on the Environmental Protection Agency's (EPA) National Priorities List (2006)
 16,191 number of businesses and industrial facilities that generate more than 1 kg (1.1 tons) of hazardous waste per month (2005)
 11.2 percent of hazardous waste shipped out of state (2005)
 40.0 percent reduction in inflation adjusted Superfund spending since 1987 (2005)
 600,000 possible brownfield properties (contaminated sites too small for Superfund)
 42 percent of Hispanics supporting environmental regulations (2003)

Superfund Spending (a)
 FY 2007: \$1.3 billion (\$4.29 per capita)

2050 Projections (a)
 \$1.9 billion: at current population trends
 \$1.7 billion: at 50 percent reduction in immigration
 \$1.3 billion: at zero population growth

Note: a. Projections assume per-capita spending stays at 2007 levels and U.S. population grows per the Pew Research Center's February 2008 forecast²

Sources: American Society of Civil Engineers, Environmental Protection Agency, Office of Management and Budget (FY 2009 budget).

David Case, the executive director of the Environmental Technology Council, a trade association based in Washington, D.C., representing the hazardous waste industry.³

"Companies have the equipment, the trained personnel, and the capacity" to conduct Superfund cleanups, brownfield redevelopments, and other private-sector environmental projects, Case says. But the demand—in the form of public or private funding for such cleanups—is inadequate. Indeed,

strongest proponents of environmental protections. This group is the core of the American political mainstream, a group that elected officials cannot afford to ignore—at least for the next few years.

Among all whites, 68 percent supported environmental regulations in 2003. The corresponding figures for blacks, Hispanics, and Asians were 49 percent, 42 percent, and 38 percent, respectively.⁴

In 1990, blacks, Hispanics, and Asians constituted 24 percent of the U.S. population. In 2000, they made up 28 percent population. By 2050, today’s minorities will be a majority.

Immigrants and their U.S.-born children will account for 82 percent of U.S. population growth between now and 2050. Most of the foreign-born come from countries in which environmental conditions are far worse than anything found here.

Implication: Demographic changes stemming from immigration will put nearly 40 years of U.S. environmental progress at risk.

Importing Hazardous Waste from Mexico

The North American Free Trade Agreement (NAFTA), the U.S.-Mexican-Canadian agreement that went into effect in 1994, affects the management of hazardous waste. The trade agreement considers hazardous waste a “good” that is accordingly free from all international restrictions. Although the General Agreement on Tariffs and Trade (GATT) allows countries to restrict entry of a good if it is “necessary to protect human, animal, or plant life or health,” NAFTA also recognized the La Paz agreement—an earlier U.S.-Mexico agreement that waived this right.

In particular, the 1983 La Paz agreement states that if Mexico requires hazardous waste generated by maquiladora industries in northern Mexico to be returned to the U.S., then the U.S. has to accept it for disposal and treatment. Moreover, Mexico is al-

lowed to keep U.S. solid waste out because it lacks adequate infrastructure for disposal.

Maquiladoras are U.S.-owned factories operating in Mexico. Their waste by-products typically start as chemicals in the United States that are shipped to the Mexican plant. Nearly 3,000 such factories line Mexico’s northern border.

How much Mexican waste comes into the U.S.? Good question.

U.S. environmental officials cannot say how much of the waste is trucked in each year, which chemicals are transported in most often, or where the hazardous Mexican waste is dumped in the U.S.

This lack of data, compounded by spotty inspections, has hampered regulatory efforts at the state and national levels. It also has undermined scrutiny of major waste importers because there is almost no way for the public to know who these companies are without sorting through thousands of forms.

Some environmentalists and border regulators even suggest that terrorists could take advantage of the limited inspections to shuttle dangerous materials into the United States.

The federal government really hasn’t done its job in terms of having people on the border to check (hazardous cargo),” says Steve Owens, director of the Arizona Department of Environmental Quality. “We see it not only as an environmental issue but as a security risk.”⁵

From 1995 to 2002, the government tracked hazardous waste imports. EPA’s Haztraks database registered the amount and kinds of waste, such as heavy metals and solvents, coming into the U.S. from Mexico and also noted where the waste was treated or disposed.

EPA operated Haztraks with its own staff and

Imports of Hazardous Waste from Mexico into the U.S., 1991-1997

YEAR	TONS
1991	5,779
1992	6,826
1993	9,836
1994	10,513
1995	8,510
1996	6,983
1997	11,057

Source: Environmental Protection Agency, Region VI and IX, HAZTRAKS Database, 1998.

contract workers who were paid \$250,000 per year. In 2003, budget cuts terminated the program. Today, EPA relies on a \$30,000-a-year program that is much smaller in scope and administered by the Border Compliance Assistance Center, a nonprofit educational group. The center hires a private contractor in Virginia to replicate some of the data entry capabilities that EPA lost. It started compiling numbers on cross-border hazardous waste in early 2007. By the time the center's computerized figures are made public, they are several months old and riddled with uncertainties.

The state of California is trying to fill the data gap. Crews from the California Department of Toxic Substances Control check inbound trucks as they queue up for hazardous waste inspections at Otay Mesa—the busiest hazardous waste entry port on the U.S. border. The inspectors actually check the contents of barrels of waste against the information contained in truckers' manifests.

As a result, more and more waste haulers are avoiding California.

It's kind of the hazardous waste version of undocumented folks coming across the border," Steve Owens, director of Arizona the Arizona Department of Environmental Quality, said. "When they tighten up the borders for hazardous waste entry (in California), importers are going to come through Arizona because our borders aren't controlled.

Arizona, New Mexico, and Texas rely on U.S. Customs and Border Patrol officials to inspect im-

ports of toxic waste. But those agents are focused on illegal immigrants and drug traffickers. Border officials typically inspect a very small percentage of hazardous waste shipments, according to a 2005 report by the Commission for Environmental Cooperation, which is sanctioned by the governments of the United States, Canada, and Mexico. The report described the current controls as ineffective and inconsistent.⁶ ■

Endnotes

1. Congressional Research Service, *Superfund: Overview and Selected Issues*, May 2006.
2. <http://pewresearch.org/pubs/729/united-states-population-projectionsforecast>.
3. American Society of Civil Engineers, 2008.
4. Michael R. Greenberg, "Is Public Support for Environmental Protection Decreasing: An analysis of U.S. and New Jersey Data," *Environmental Health Perspectives*, February 2004. http://findarticles.com/p/articles/mi_m0CYP/is_2_112/ai_114559343/print?tag=artBody;coll.
5. Mike Lee, "U.S. Lacks Good Data on Hazardous Materials Trucked from Mexico," *San Diego Union-Tribune*, June 12, 2006. <http://www.signonsandiego.com/news/mexico/tijuana/20060612-9999-1n12waste.html>.
6. Mike Lee, "U.S. Lacks Good Data on Hazardous Materials Trucked from Mexico," *San Diego Union-Tribune*, June 12, 2006.