



CLEAN LAND

From Superfund to Super Parks

Thirty years ago, thousands of contaminated junkyards, dump sites, and industrial facilities littered the land. Industry and the government addressed chemical usage and disposal totally separately. To bring this toxic dilemma under control, Congress began establishing laws to prevent polluting yet more areas, and then to clean up the many toxic sites around the country.

Congress enacted the Resource Conservation and Recovery Act (RCRA) in 1976 to address chemical usage and disposal from a more comprehensive approach. The act regulates hazardous waste through the entire 'life cycle' - from cradle to grave.

To address the existing, highly contaminated sites, Congress passed the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in 1980, which established the Superfund program. More than 36,000 sites were identified and entered into EPA's inventory of hazardous waste sites.

These two laws changed the way the country looked at industrial pollution. Generators of hazardous waste became responsible for the use and disposal of their waste. Polluters became responsible for cleaning up the mess they created. The EPA then faced the challenge of monitoring chemical use, disposal and clean-up.

"From Cradle to Grave"
Hazardous wastes under RCRA are now managed within a system having a beginning and an end. Many industrial

and commercial facilities are required to have permits controlling both waste treatment and disposal. Although household hazardous wastes are primarily controlled at the local level, EPA set national standards for municipal waste disposal to ensure that problems don't arise in the future.

Business Incentives

The EPA's Region 10 is finding new ways to better manage our chemicals and waste, from using fewer toxic chemicals in industrial processes to voluntary cleanups of past releases. One such voluntary initiative provides incentives to companies for going beyond simple compliance with environmental requirements. Targeting 17 high-priority toxic chemicals, participating companies here have reduced releases and disposals by an astonishing 58%. Corporate consciousness and initiative account for much of the program's success with over a quarter of the eligible companies participating, the highest rate in the U.S.

Economic opportunity and environmental protection are not mutually exclusive propositions. In stimulating the development of businesses that use recyclable or reusable materials, new jobs and tax revenues have been created while performing an important environmental service to society. Our support led to a national electronic marketplace for recyclables on the Chicago Board of Trade Recyclables Exchange.

Congress intended for the States to have direct responsibility for running the RCRA program. The EPA assumed an assistance and oversight role, providing compliance and enforcement functions, where appropriate. Oregon, Washington, and Idaho have pursued and been authorized to regulate their share of the 6,818 hazardous waste handlers located throughout the region. Alaska has not. In 1997, Washington ranked 24th, Oregon 36th, Idaho 9th, and Alaska 47th in hazardous waste generation among the 50 states.

Garbage and Recycling

Most of us have heard reports about the unfortunate problems created by municipal landfills. We are addressing these problems by promoting better waste management practices. Lining landfills with high-tech seepage preventing barriers or returning sites to valuable park and recreational space make these sites better neighbors.

It takes an entire forest - over 500,000 trees- to supply Americans with their Sunday newspapers every week? Recycling is a vital part of any sensible waste management program. It not only reduces the volume of

garbage otherwise sent to landfills, but also reduces demands on our natural resources. Although the trend in recycling here has been steadily moving upward, so has the per capita amount of waste generated. Your continuing support is the key.

Toxic Substances

Some materials are so toxic, and the threat of their release to the environment so widespread, that special toxic substances laws were enacted to regulate them. EPA has broad authority to ensure that these substances are managed safely. Our focus in this region is on PCB's (polychlorinated byphenyls), chemicals in commerce (import/export), and lead.

Between 1930 and 1979, PCBs were used as an insulator in a variety of electrical equipment. PCB's are a very effective insulator - and a very potent environmental hazard. Some 137 million pounds of PCBs were safely disposed of in permitted facilities in 1994.

It is truly disturbing that one in every 25 children in the U.S. has dangerously high blood lead levels. This comes about in a variety of ways, including contact with leaded paints, contaminated soil, and dust. We're working to assist tribes and states to reduce lead exposure.

Cleaning up the Contamination

Superfund is designed to protect human health and the environment through fast, effective cleanup of priority hazardous waste sites and releases. Those who created the problems are required to clean them up. If they either can't be identified or can't afford the cleanup costs, the government moves forward with cleanup using federal money.

We work with others - state, tribal and local agencies, and the general public - in actively searching for sites that may require cleanup under

Superfund. Once identified, these sites fall into two basic categories. There are those sites which are considered such a significant hazard to human health or the environment that they require an immediate cleanup, known as a removal. And there are other seriously contaminated sites that require more long-term cleanup. These sites can be added to the National Priorities List (NPL) and thus become eligible for federal funded cleanup money if necessary. Some sites are also cleaned up under the supervision of a qualified state cleanup program.

The Removal Program

Removals typically take less than a year and involve waste treatment onsite or transferring drums, excavated contaminated soils, and other wastes to regulated disposal facilities. Some removals are outright emergencies stemming from fires or spills. In non-emergencies, we locate the party responsible for the contamination and direct them to perform the cleanup. If post-removal testing of soils and groundwater reveals that

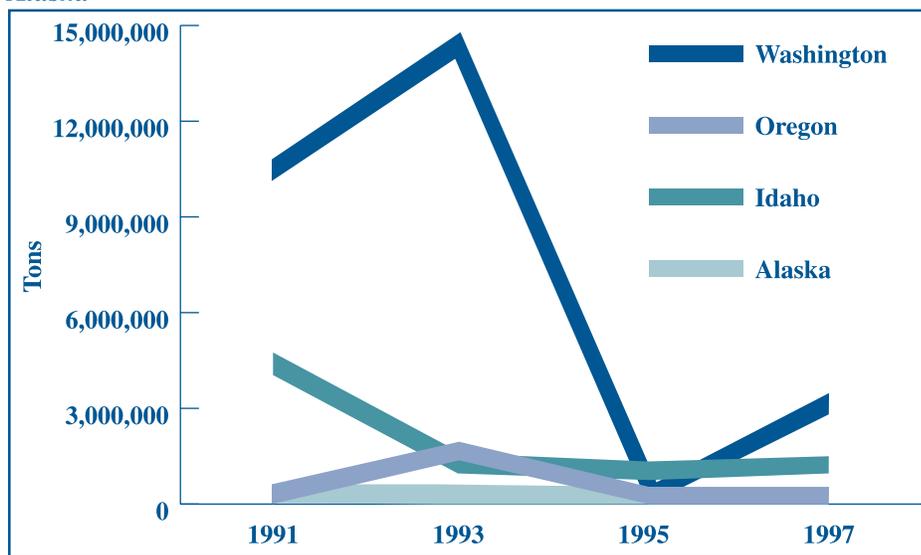
contamination levels are still of concern, the site may either be listed on the NPL or referred to another agency for further cleanup.

Northwest Superfund Sites

Of the over 1,400 Superfund sites located across the country, 91 can be found in the Pacific Northwest. Over a million people here live within two miles of one or more Superfund sites. These sites run the gamut from active industrial facilities to small businesses. From less than an acre to more than 21 square miles in size.

Of the region's 91 Superfund sites, 43 have been cleaned up and 22 of them have been formally deleted from the NPL. Final cleanups at another 41 sites are currently underway nationally. More than 675 of the most serious uncontrolled or abandoned hazardous waste sites have been cleaned up and 85 more will be done by the end of 2000. Responsible parties have paid 70 percent of the cleanup costs, saving taxpayers billions of dollars.

Quantity of RCRA Hazardous Waste Generated in the Pacific Northwest & Alaska



High-Tech Cleanup Winding Down

The Western Processing Company, a chemical waste processing and recycling facility, operated from 1961 to 1983 on a 13-acre site in Kent, 20 miles south of Seattle. Some of the Pacific Northwest's largest industries contracted with Western Processing to handle a wide variety of chemicals and waste materials.

In 1983, the EPA ordered the company to stop operations and placed Western Processing on the NPL. The Superfund program required the cleanup of contaminants from soil and water found during the site investigation.

Cleanup activities began in 1984 with the removal of 4,700 tons of wastes from ponds, drums, and tanks on the site's surface. The EPA worked with the Washington Department of Ecology in 1987 on the second cleanup phase, removing more than 35,000 cubic yards of contaminated soils and sludges.

In the ensuing years we built a 40-foot deep vertical barrier wall, groundwater treatment system, and a multi-layered cap over the entire 13-acre southern portion of the site.

Today, the site is 95% complete, and no taxpayer money was used to clean up the site. The work was managed and paid for entirely by the Western Processing Trust. The Trust was formed by the responsible parties (companies such as Boeing, Franz,) who had used Western Processing to dispose of their waste. The work accomplished demonstrates the successful partnership of government and private industry in helping to protect the environment and improve the quality of life for the people of the Pacific Northwest.



Oil Spills & Public Awareness
EPA and the Coast Guard are jointly responsible for cleaning up oil spills, and for enforcing laws meant to prevent spills. If a facility that stores oil reports two or more small spills, or one large one, it must submit a spill prevention and cleanup plan to EPA for review. EPA also performs inspections of such facilities to help keep spills from happening.

Superfund's Emergency Planning and Community Right to Know Act requires businesses using hazardous chemicals to report the chemicals and their quantities to state and local emergency response and planning groups. We support these groups with grants, technical assistance and training. Our hazardous materials response program has conducted health and safety training at eleven villages in Alaska in an effort to prepare residents for cleanup jobs at local sites.



Prince William Sound, Alaska. Eleven million gallons of crude oil from the Exxon Valdez contaminated shorelines 1989. Congress passed the Oil Pollution Act in 1990.