Waste Management

Although our industrial society produces a variety of solid wastes and waste waters, over the past 50 years we have made progress in disposing of them safely in landfills, by incineration, and in underground injection wells. Many wastes are also increasingly recycled or reused.

Basics

An essential goal of waste management is to dispose of waste without contaminating water, soil, and air. Many wastes are disposed of safely in engineered landfills, by incineration, and in underground injection wells. All of these processes of waste management are monitored and regulated closely. Waste management can also provide economic opportunity: generating energy from landfill gas; recycling to produce new materials from used plastic, paper, glass, or metal; or composting to produce rich soil from yard and food waste.

Frequently Asked Questions

What is biomining?
American Geosciences Institute
What is produced water?
American Geosciences Institute
How does recycling save energy?
American Geosciences Institute
What are underground injection wells used for?
American Geosciences Institute
Climate
Climate has an enormous impact on society, with wide-ranging effects on public safety and health, the economy, transportation, infrastructure, and agriculture. Geoscientists investigate our climate's past and present to better understand how it may change in the future.

Water Quality
Water quality refers to whether water is suitable for a certain purpose, like drinking or irrigation. Both natural and man-made factors can affect water quality. Contaminants can include bacteria, metals, and man-made chemicals like pesticides or pharmaceutical drugs.

Maps & Visualizations

Interactive map of hazardous waste cleanups in the United States
U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) provides an interactive map of hazardous waste cleanups across the United States. The "Cleanups in My Community" map provides a huge amount of information on thousands of cleanups of many kinds. For every cleanup, users can access and download reports...
Non-Fuel Products of Oil and Gas

Introduction Oil and natural gas are complex mixtures of chemicals. Oil refineries and gas processing plants extract the organic compounds that make the best fuels for transportation, heating, and electricity generation: gasoline, jet fuel, diesel fuel, heating oil, and methane. Other chemicals...

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