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.[1] 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. Read more

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.

Latest News

House committee hearing considers nuclear waste legislation
(2017-05-18)
April 26, 2017 The House Energy and Commerce Subcommittee on Environment held a hearing on April 26 to examine a discussion draft of a bill that would amend certain provisions of the Nuclear Waste Policy Act of 1982 (NWPA) to streamline management and licensing processes for nuclear waste disposal...

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...
Spills in Oil and Natural Gas Fields

Introduction Oilfield spills can harm wildlife and pose a risk to human health if they reach fresh water sources or contaminate soil or air. The enormous size of the oil and gas industry and the huge volumes of oil and produced water that are handled, stored, and transported result in thousands of...

Making Produced Water More Productive

2015-12-11

Geoscience is essential to our understanding and management of produced water, an inevitable by-product of oil and gas development. This Critical Issues webinar provides a scientific and regulatory background of produced water, how it is commonly disposed, what opportunities exist for the re-use...
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development. This course provides a scientific and regulatory background of produced water, how it is commonly disposed,
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Geological Surveys Database Publications

Three-dimensional geological mapping; workshop extended abstracts
2018, Illinois State Geological Survey