US ERA ARCHIVE DOCUMENT

Greener Cleanup Workshop

Introduction

US EPA Region5 Chicago, IL

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Today's Agenda

- Basics- Basics and Acronyms
- National Greener Cleanup Summary
- State Status Summaries & Case Studies
- Status of Green Cleanup Standard
- Region 5 GC Policy and Feedback
- Other organizations working on GC
- Feedback and Next Steps



Green Going Mainstream















Drivers - Shifting Public Sentiment

- **□** 2007 Goldman Sachs Report:
 - > 72% of companies that ranked high in environmental issues outperformed their peers on the stock market.
 - Organizations with superior environmental issues have superior financial performance- Lead by an average of 25 %
- □ 2009 Gallup polling data:
 - 60 percent of Americans say they worry about "global warming" a "great deal" or "a fair amount"
- □ 2009 Washington Post/ABC News poll:
 - 72 percent of Americans believe global warming is happening
 - 65 percent favor greenhouse gases reductions to reduce global warming



Drivers – Climate Change and Energy Programs

- □ State, Local, NGO, business, international, community initiatives
- 35 states have renewable portfolio standards (RPS)
 - Specifies a percentage of total energy to be derived from renewable sources
- ☐ 19 states have public benefit funds (PBFs)
 - Supports energy efficiency and renewable energy projects; collected through small charge to electric customers or utility contributions 22 states have GHG inventories
- **□** 23 states have energy efficiency standards
- 22 states have carbon sequestration programs
- Regional Initiatives
 - 6 Regional GHG Initiatives composed of states collaborating to create "cap and trade" systems and address GHG emissions across broad geographic areas
 - Regional Greenhouse Gas Initiative (RGGI) will cap carbon emissions in 11 northeastern states. Initial auction of carbon allowances to be held in summer 2008



More Drivers-Global

- Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment.
- Adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janerio, June 1992.
- Overseen by Commission on Sustainable Development.
- □ Chapter 20 of Agenda 21: Prevention of the generation of hazardous wastes and the rehabilitation of contaminated sites are the key elements...



So, how do we "Green" Our Programs?

Deconstruction, Demolition, and Removal Cleanup, Remediation, and Waste Management

Design and Construction for Reuse

Sustainable
Use &
Long-Term
Stewardship



Use a systems approach; Look for environmental opportunities; identify and balance tradeoffs

Some Examples of Greener Approaches









Deconstruction, Demolition, and Removal Cleanup, Remediation, and Waste Management Design and Construction for Reuse

Sustainable Use and Long Term Stewardship

- Reuse/recycle deconstruction and demolition materials
- Reuse materials on site whenever possible
- Consider future site use and reuse existing infrastructure
- Preserve/Reuse Historic Buildings
- Use clean diesel and low sulfur fuels in equipment and noise controls for power generation
- Retain native vegetation and soils, wherever possible
- Protect water resources from runoff and contamination

- Power machinery and equipment using clean fuels
- Use renewable energy sources, such as solar, wind, and methane to power remediation activities
- Improve energy efficiency of chosen remediation strategies
- Select remediation approaches, such as phytoremediation, that reduce resource use and impact on air, water, adjacent lands, and public health
- Employ remediation practices that can restore soil health and ecosystems and, in some cases, sequester carbon through soil amendments and vegetation

- Use Energy Star, LEED, and GreenScapes principles in both new and existing buildings
- Reduce environmental impact by reusing existing structures and recycling industrial materials
- Incorporate natural systems to manage stormwater, like green roofs, landscaped swales, and wetlands
- Incorporate Smart Growth principles that promote more balanced land uses, walkable neighborhoods, and open space
- Create ecological enhancements to promote biodiversity and provide wildlife habitat and recreation

- Reduce use of toxic materials in manufacturing, maintenance, and use of buildings and land
- Minimize waste generation, manage waste properly, and recycle materials used/generated
- Maintain engineering and institutional controls on site where waste is left in place
- Reduce water use by incorporating water efficient systems and use native vegetation to limit irrigation
- Maximize energy efficiency and increase use of renewable energy
- Take appropriate steps to prevent (recontamination)

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