

# US Army Corps of Engineers

## The Nation's Environmental Engineer

**Jim Balocki**

**Chief, Environmental Community  
of Practice**

**15 June 2010**



US Army Corps of Engineers  
**BUILDING STRONG®**

# Report Documentation Page

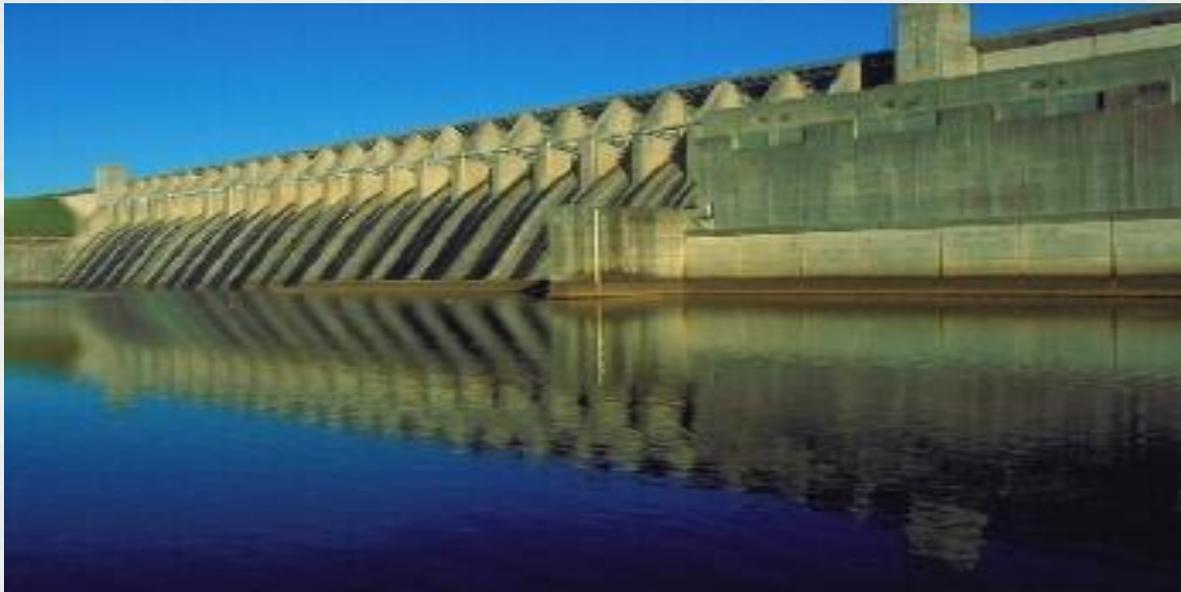
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# Outline

- Sustainability in USACE
- Implementing Executive Order 13514
- 2010 and Beyond



# Corps of Engineers

## Environmental Operating Principles

- S Strive for Sustainability
- U Use systems-based approaches
- S Seek and respect stakeholder input
- T Take responsibility for our actions and decisions
- A Act now and always to protect and preserve
- I Integrate and share environmental knowledge
- N Negotiate balance and synergy



# Sustainable Facilities and Infrastructure

DEPARTMENT OF THE ARMY  
 ASSISTANT SECRETARY  
 INSTALLATIONS AND ENVIRONMENT  
 101 ARMY PENTAGON  
 WASHINGTON DC 20315-0110

18 MAR 2002

**Sustainable Project  
 Rating Tool (SPiRiT)  
 – GSA award,  
 ASA(I&E) Policy  
 2002**

Information on SDO documents and SPiRiT is available on the web at <http://www.hqda.army.mil/acsimweb/tdlinks/SDO.htm> and <http://www.cpepr.army.mil/sustdesign>

*Mario P. Fiori*  
 Mario P. Fiori

Printed on Recycled Paper

DEPARTMENT OF THE ARMY  
 OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY  
 INSTALLATIONS AND ENVIRONMENT  
 101 ARMY PENTAGON  
 WASHINGTON DC 20315-0110  
 05 JAN 2006

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Sustainable Design and Development Policy Update – SPiRiT to LEED Transition

1. The purpose of this memorandum is to update the Army Strategy for integrating the principles and practices of sustainability on our installations as we minimize the impacts and total ownership costs of Army systems, material, facilities, and operations. Accordingly, the Army will transition from the Sustainable Project Rating Tool (SPiRiT) to the US Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system effective with the FY 08 Military Construction program.

2. All military vertical building construction projects starting with the FY 08 military construction program will achieve the SILVER level of LEED NC (New Construction). This policy includes all new construction projects, regardless of fund source. Horizontal construction, such as runways, roads and airfields, will continue to incorporate Sustainable Design and Development features to the maximum extent possible. The Installation Director of Public Works or the Reserve Component equivalent, supporting Engineer District, designer and constructor

**SPiRiT to LEED  
 – LEED Silver -  
 Jan 2006**

Joseph W. Whitaker  
 Deputy Assistant Secretary of the Army  
 (Installations and Housing)  
 OASA(I&E)

ang@us.army.mil, 703-602-5827.



**USGBC Leadership  
 Award - 2009**

FOR THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT:

**Sustainable Mgmt  
 of Waste in  
 MILCON -7/2006**

CF:  
 ACSIM  
 DACSIM  
 ASA(I&E)JRCI (Mr. D. Spiegelmyer)  
 DASA(I&H), ASAIE (Ms. A. Valerina)  
 DASA(ESOH), ASAIE (Mr. R. Murphy)



**LEED Validation Study 2009**



# Restoring Properties/Ecosystems

*Everglades*



*Fort Tidball, Alaska*



*Nesting Least Terns  
Gavins Point Dam  
Missouri River*

The Corps restores properties and ecosystems, making both again available to the public for beneficial use.



# Recreation, Parks and Dams



**BUILDING STRONG®**

# Green / Sustainable Remediation



**Phytoremediation of arsenic at Spring Valley FUDS site, Washington DC**



**Wind-powered pump and treat at Former Nebraska Ordnance Plant, Mead, NE**



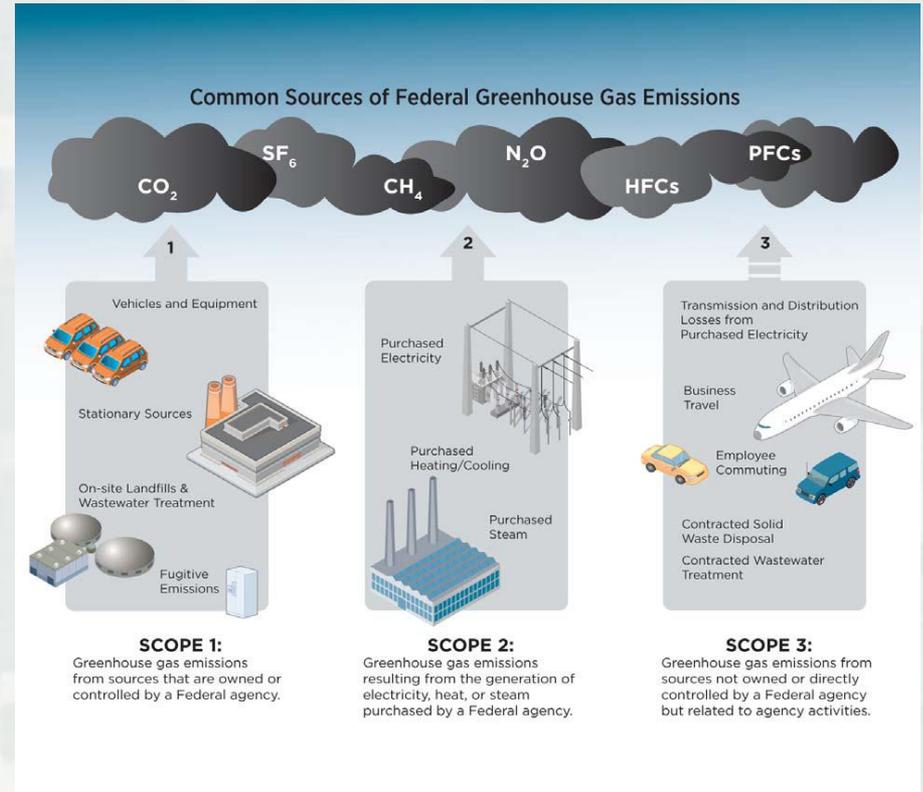
(from ITRC "Protocol for Use of Five Passive Samplers to Sample for a Variety of Contaminants in Groundwater", February 2007)

**Passive samplers, used across many Corps sites**



# Implementing EO 13514

- Designated “Agency Senior Sustainability Officer”
- Strategic Sustainability Performance Plan
- Greenhouse gas targets and inventory
- Sustainability Sub-Community of Practice
- Energy



# Energy Reductions - Net Zero Energy (NZE) Installation Focus Areas



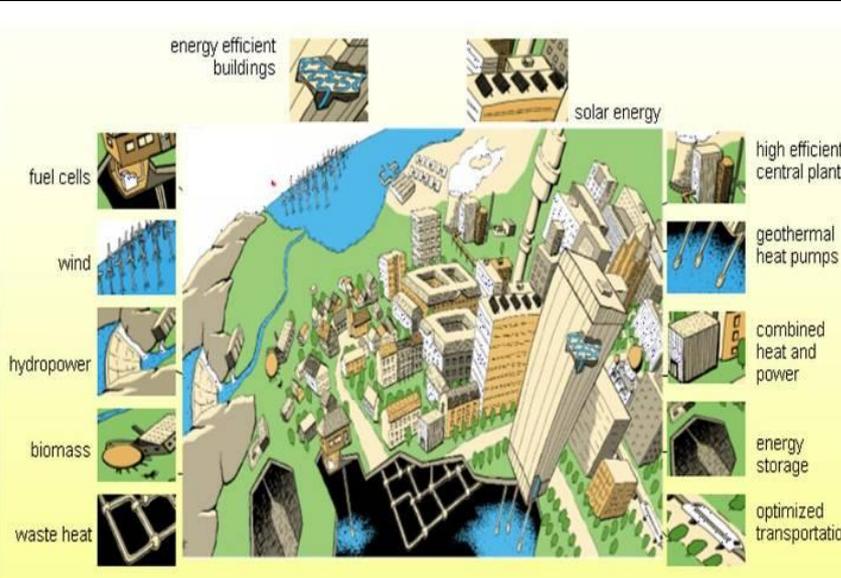
**Energy Conservation  
(New & Existing Facilities)**



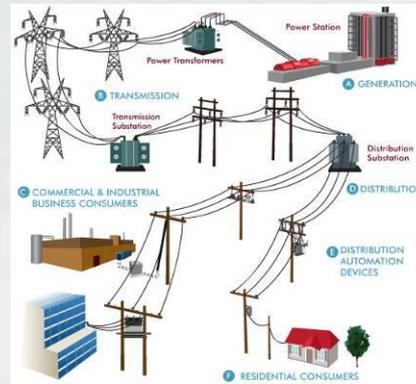
**Renewable Power Production**



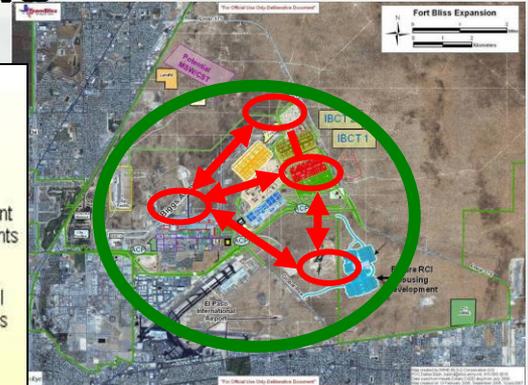
**Training / Workshops**



**Holistic NZE Installation**



**Power & Energy  
Architecture & Controls**



**Modeling & Simulation**



**Technology Demonstrations**



**Operational Issues  
Humidity & Mold**



# 2010 and Beyond

- Vendor and contractor GHG emissions
- Hydropower modernization and other renewable energy initiatives
- Vessel fleet fuel efficiency initiatives and other fleet enhancements
- Channel availability improvements at the Nation's busiest ports
- Climate change adaptation pilots / Research and Development

