

Getting to the Finish Line for Cleanup and into the Starting Block for Reuse with the Triad Approach

Brownfields 2005

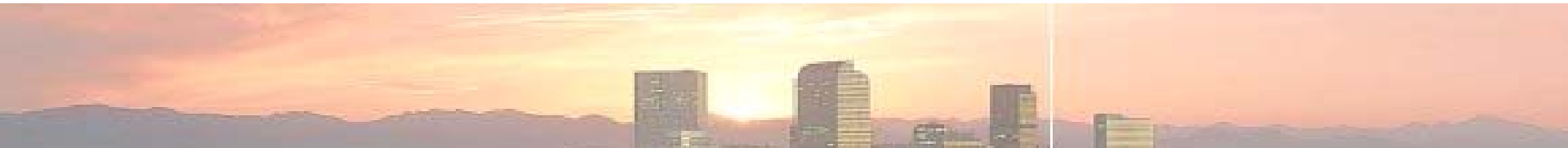
Denver, CO

Thursday, November 3, 2005

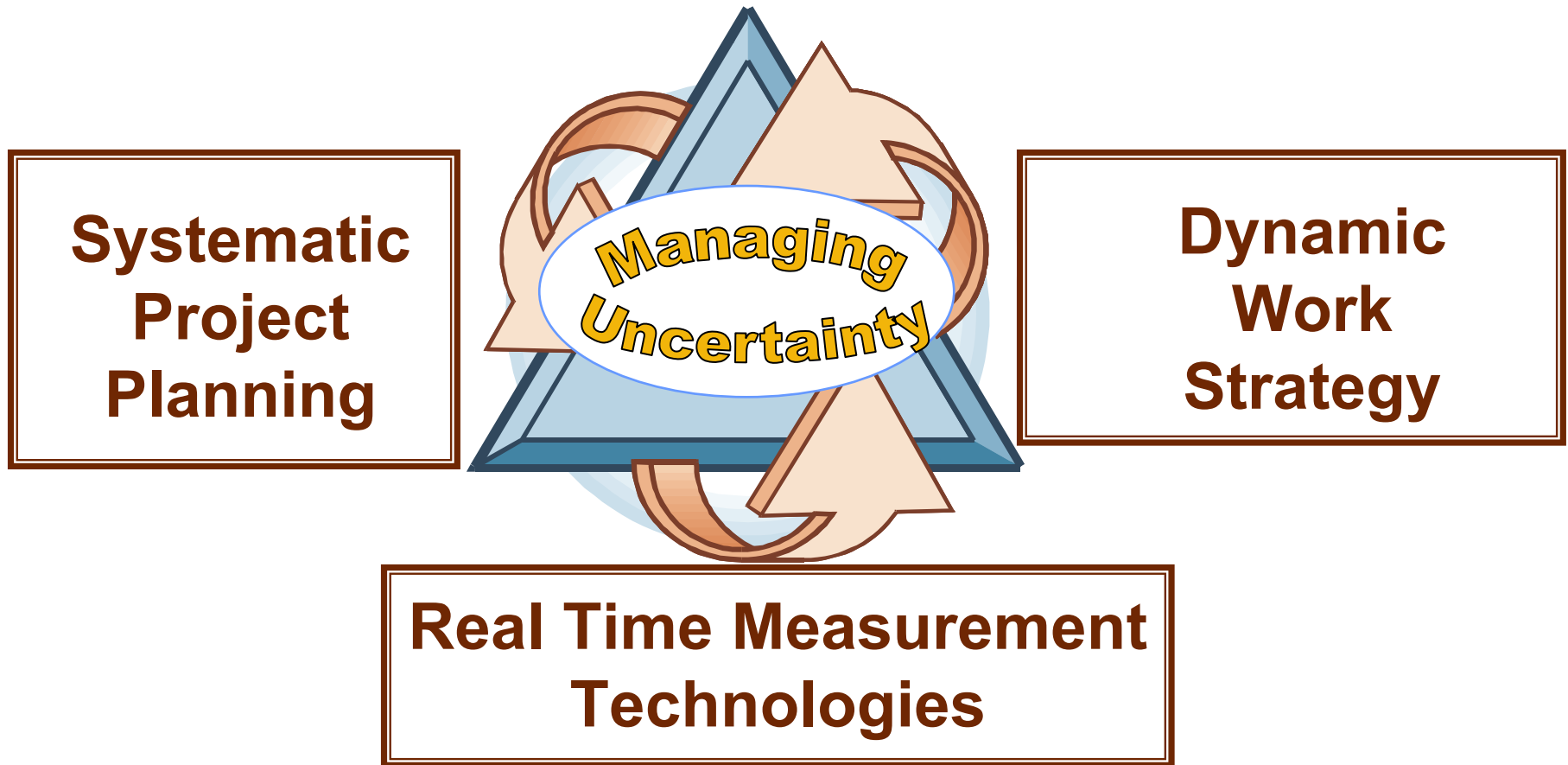
Moderator: Michael B. Cook

Director, Office of Superfund Remediation and
Technology Innovation

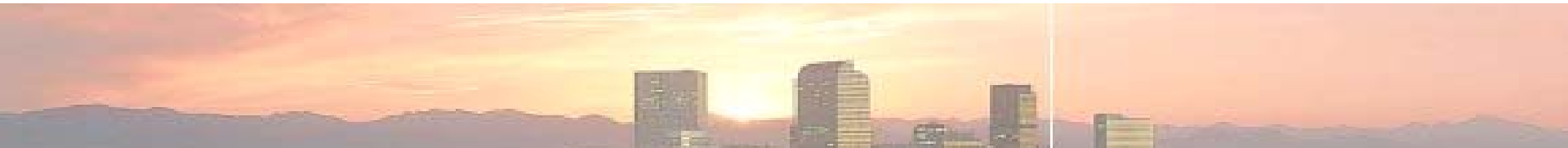
U.S. Environmental Protection Agency



The Triad Approach

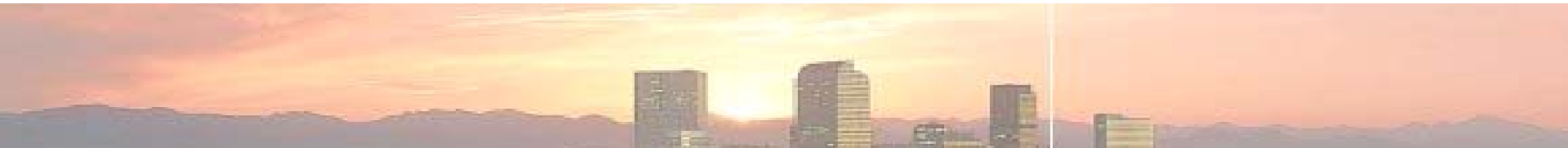


Synthesizes practitioner experience, successes, and lessons-learned into an institutional framework



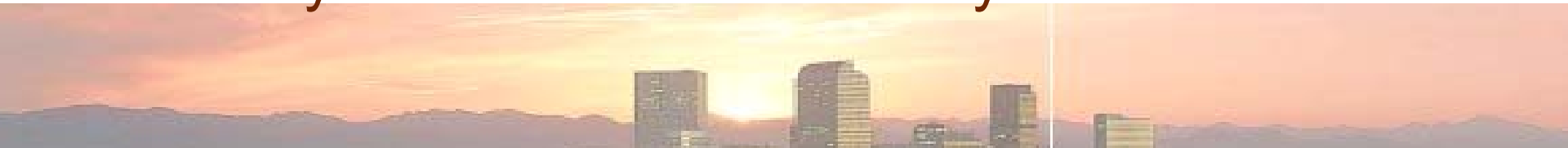
Triad: Real World Applications

- ◆ Brownfields sites
 - » Milltown, NJ
- ◆ Resource Conservation and Recovery Act (RCRA)
 - » Lockheed Martin Facility
- ◆ Superfund sites
 - » McCormick and Baxter
- ◆ UST Sites
 - » South Dakota
- ◆ State Cleanup sites
 - » Wenatchee Tree Fruit
- ◆ Department of Defense
 - » Avon Park, FL (USAF)
- ◆ Department of Energy
 - » Ashland FUSRAP Site



Summary/Cost Savings

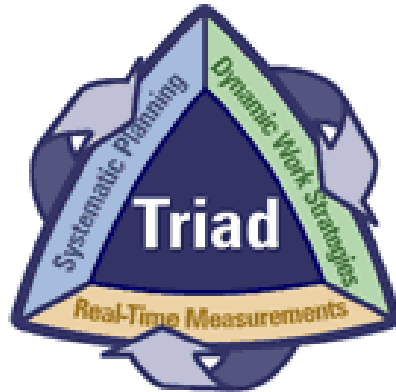
- ◆ Average Time Savings: almost 2 years
 - Minimum: 6 months
 - Maximum: 3 years
- ◆ Average Cost Savings : 45% reduction in costs
 - Minimum: 35%
 - Maximum: 50%
 - Ex: One DoD site reported a cost avoidance of \$2.5M and 3 years saved
- ◆ All profiled projects have cited reduced costs and time savings due to: fewer mobilizations, shortened work schedule, and greater data density that reduces uncertainty at site



Moving Triad Forward-The Future

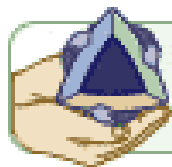
- ◆ Brownfields and beyond – “mainstreaming” Triad across waste programs with active efforts in Brownfields, Superfund, UST, Federal Facilities, RCRA, and State program
- ◆ Multiple strategies including:
 - » Policy and guidance (management support)
 - » Technical support
 - Direct, site-specific support
 - Hands-on experience and real world examples
 - » Training
 - » Information resources
 - » Outreach/awareness-meetings, conferences, exhibits





"The NJDEP supports and encourages the use of the Triad for sites undergoing investigation and remediation within the Site Remediation and Waste Management Program where feasible."

*Joseph Seebode
New Jersey Department of
Environmental Protection
Assistant Commissioner for Site
Remediation and Waste
Management*



Multiagency
support for Triad

Triad Resource Center

TRIAD: A SMARTER SOLUTION TO SITE CLEANUP

The Triad is an innovative approach to decision-making for hazardous waste site characterization and remediation. The Triad approach proactively exploits new characterization and treatment tools, using work strategies developed by innovative and successful site professionals. The Triad Resource Center provides the information hazardous waste site managers and cleanup practitioners need to implement the Triad effectively.

- [▶ Triad Overview](#)
- [▶ Triad Management](#)
- [▶ Regulatory Information](#)
- [▶ Technical Components](#)
- [▶ User Experiences](#)
- [▶ References/Resources](#)

[Glossary](#)

[FAQs](#)

[Acronyms](#)

www.triadcentral.org

Panelists

Timothy Fields, Tetra Tech EM, Inc.

Karen Reed, U.S. EPA, Region 8

Robert Howe, Tetra Tech EM, Inc.

**Jim Mack, New Jersey Institute of
Technology**