Regulatory Acceptance for New Solutions

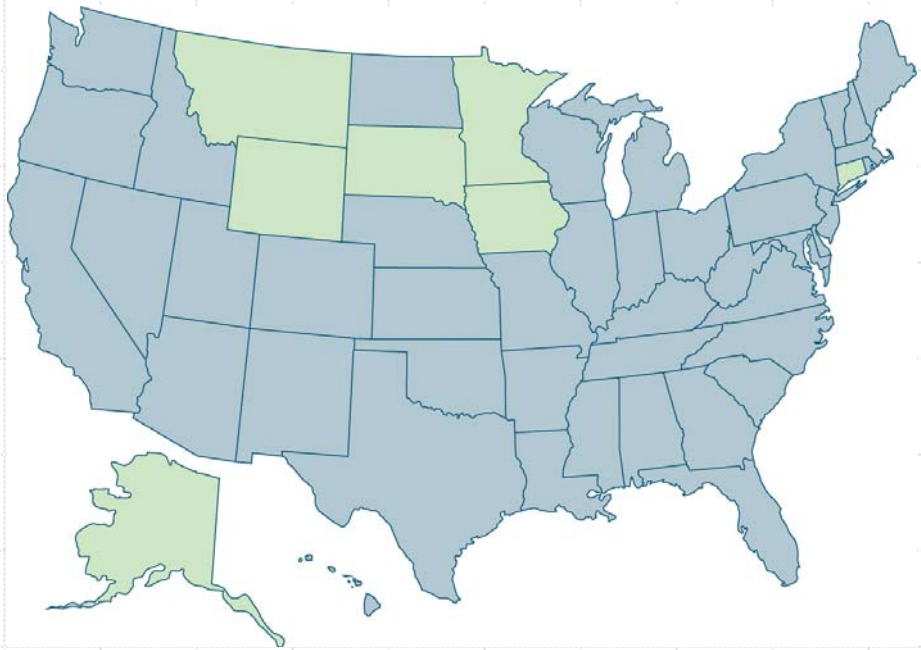
Who We Are
What We Do
Where We Are Going

Performance Monitoring Workshop – June 21-23 – Butte, MT

ITRC — Who We Are

ITRC is a state-led, national coalition of regulators and others working to

- improve state permitting processes and
- speed the implementation of new environmental technologies



ITRC — Who We Are

- ✓ State regulators
- ✓ Industry representatives
- ✓ Academia
- ✓ Public stakeholders
- ✓ Federal agencies

U.S. Department of Energy

U.S. Department of Defense

U.S. Environmental Protection Agency

- ✓ Host organization

Environmental Council of the States

- ✓ State organizations

Western Governors' Association

Southern States Energy Board

ITRC — What We Do

We aim to improve environmental decision making by reducing technical and regulatory barriers against innovative technologies.

We bring the environmental community together to

- foster collaboration
- focus on mutual priorities
- lead to partnered solutions
- create consensus-based tools and resources

Decision-making Tools & Resources for the Environmental Community

Proven Model:

Mutual priorities > Consensus-Based Tools > Partnered Solutions

- ✓Technology Overviews / Case Studies
- ✓Regulatory and Technical Guidelines
- ✓Classroom Training Courses
- ✓Internet-Based Training Courses

2005 ITRC Teams

- Alternative Landfill Technologies
- Arsenic in Groundwater
- Bioremediation of DNAPLs
- Brownfields
- Diffusion Samplers
- Ecological Land Reuse
- Enhanced Attenuation: Chlorinated Organics
- MTBE
- Perchlorate
- Radionuclides
- Remediation Process Optimization
- Risk Assessment Resources
- Sampling, Characterization, and Monitoring
- Unexploded Ordnance
- Vapor Intrusion

Benefits to DOE

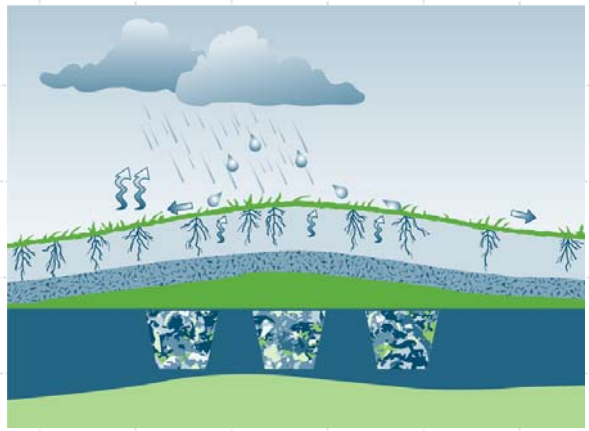
- Facilitates interactions between DOE managers and state regulators
- Increases consistency of regulatory requirements for similar sites in different states
- Helps reduce uncertainties when preparing cleanup plans
- Addresses DOE's remediation needs (radionuclides, risk assessment, metals, organics)
- Several technical teams are dedicated to problems of particular concern to DOE

Benefits to DoD

- Facilitates interactions between DoD managers and state regulators
- Increases consistency of regulatory requirements for similar sites in different states
- Reduces uncertainties when preparing cleanup plans
- Addresses contaminants of concern to DoD (heavy metals, VOCs, PAHs, organic pesticides, solvents, etc.)
- Several technical teams are dedicated to problems of concern to DoD
- MOU established review process for ITRC products of interest to DoD

Alternative Landfill Technologies

Goals: Identify barriers to the deployment and beneficial use of alternative landfill cover technologies and reduce their construction, operation, and maintenance costs



Products:

- Technology overview document with case studies
- Technical/regulatory guidance on methods to design, construct, and monitor landfills using alternative landfill covers
- Classroom and Internet-based training courses

Currently developing guidance on bioreactors and post-closure care

Brownfields

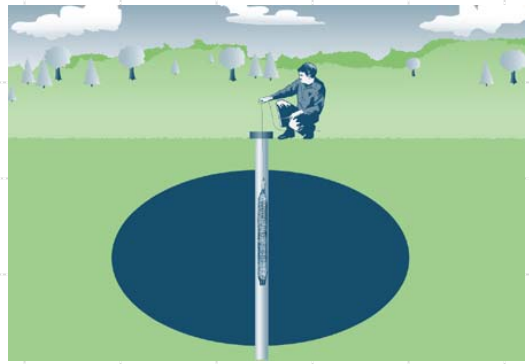
Goal: A coordinated approach to addressing the issues surrounding the cleanup and reuse of contaminated sites

Product: *Vapor Intrusion Issues at Brownfield Sites*

Currently researching and writing a resource document that will incorporate successful brownfield strategies and incentives into BRAC 2005

Diffusion Sampler Technology

Goal: Advance this inexpensive and simple way to sample groundwater and groundwater discharges to surface water



Currently writing a technology overview

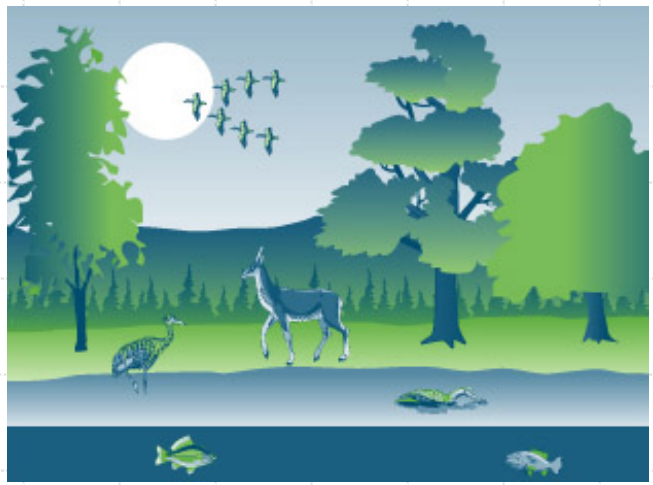
Products:

- Collaborated with Navy, Air Force, and Army to develop *User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells*
- *Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater*
- Internet-based training
- Diffusion Sampler Information Center Web site
- Resource CD of relevant articles and presentations

Ecological Land Reuse

Goal: Substantiate and publicize the environmental and economic benefits of incorporating ecological enhancements into remedial decision making at brownfield, hazardous waste, and other impaired sites

Product: *Making the Case for Ecological Enhancements* *Making the Case for Ecological Enhancements*, a white paper with the Wildlife Habitat Council and case studies



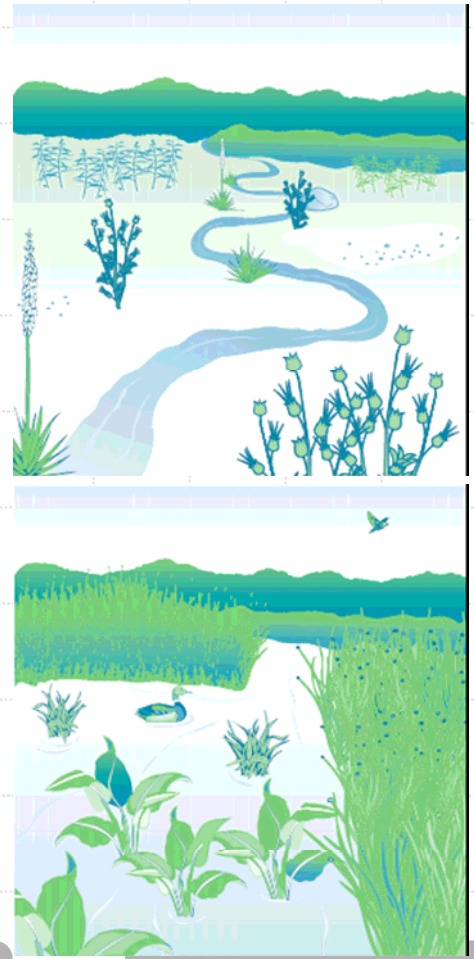
Currently developing a guidance document

Mitigation Wetlands

Goal: Promote the long-term sustainability of mitigation wetlands

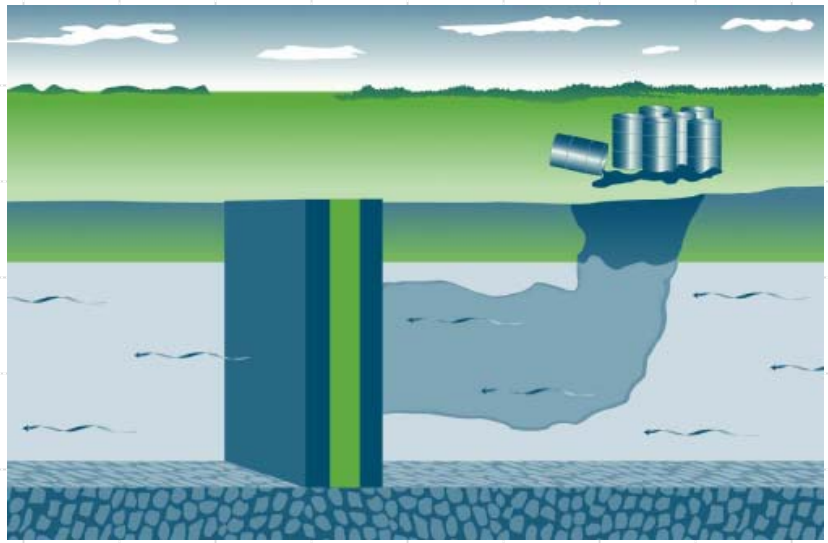
Products

- *Characterization, Design, Construction, and Monitoring of Mitigation Wetlands*, to standardize criteria for evaluating and documenting the performance of mitigation/restoration wetlands
- Internet-based training



Permeable Reactive Barriers

Goal: Advance knowledge and understanding of this versatile in situ groundwater treatment technology



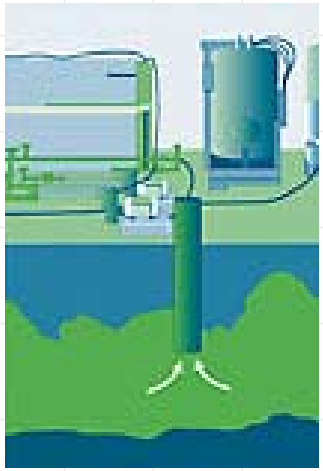
Products

Four guidance documents, the most recent entitled *Lessons Learned/New Directions* (2005)

Internet-based training

Remediation Process Optimization

Goal: Evaluate and communicate the benefits of Remediation Process Optimization techniques and the related concept of Performance Based Management by ensuring protectiveness while maximizing efficiency.



Product: Technical Regulatory Guidance, *Remediation Process Optimization: Identifying Opportunities for Enhanced and More Efficient Site Remediation.*

Currently developing five Fact Sheets on RPO and PBM related topics and related internet training.

Radionuclides

Goal: Promote consistency in developing cleanup goals as a first step in encouraging selection and deployment of appropriate technologies for the characterization and remediation of radionuclides at DOE sites

Products

Three documents—a reference guide, case studies, and *Issues of Long-Term Stewardship: State Regulators' Perspectives* (2004)

Internet-based training

Currently developing document and training on real-time characterization

ITRC Team Contacts

- Alternate Landfill Technologies &Ecological Land Reuse – Charles Johnson, CO – DPHE, charles.johnson@state.co.us
- Brownfields – Christine Costopoulos, NY – DEC, cjcostop@gw.dec.state.ny.us
- Diffusion Sampler Technology – Kim Ward, NJ – DEP, kim.ward@dep.state.nj.us
- Mitigation Wetlands – Paul Eger, MN – DNR, paul.eger@dnr.state.mn.us
- Permeable Reactive Barriers – Matt Turner, NJ – DEP, matthew.turner@dep.state.nj.us
- Radionuclides – Tom Schneider, OH – EPA, tom.schneider@epa.state.oh.us

ITRC Contacts

ITRC Program Administrator:

Tim Titus, ECOS
202-624-3660, ttittus@sso.org

Co-Chairs, ITRC Board of Advisors:

Bob Mueller
NJ Department of Environmental Protection
609-984-3910, bob.mueller@dep.state.nj.us

Joe Francis
NE Dept of Environmental Quality
402-471-6087, joe.francis@ndeq.state.ne.us

www.itrcweb.org