



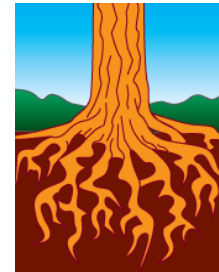
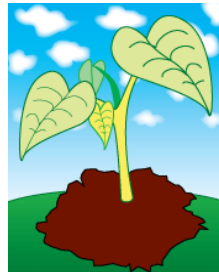
# Technical Support for Site Remediation and Reuse

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[www.cluin.org/ecotools](http://www.cluin.org/ecotools)



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# Technology Innovation & Field Services Division (TIFSD)

- Technology information
- Expert field & laboratory support
- Training



# Technical Assistance for Ecological Revitalization

- Field Demonstration
- Technical Experts
- Communication & Outreach



<http://www.cluin.org/ecotools>

# Leadville, CO



# Palmerton, PA





# Vermont Asbestos Group



# East Helena, Montana

## SRI Regional Funding

- Develop vision for redevelopment

## TIFSD Technical Assistance:

- On-site consultation
- Participation in day-long charrette to integrate technical expertise into remedy and reuse considerations
- Soil sampling via inter-agency agreement



# Technical Expertise

- Review site reports
- Field work
- Assist with sourcing organic amendments
  
- How?
  - In-house experts
  - InterAgency Agreements
  - Contracting options



# Benefits of Remediation to Ecological Land Use

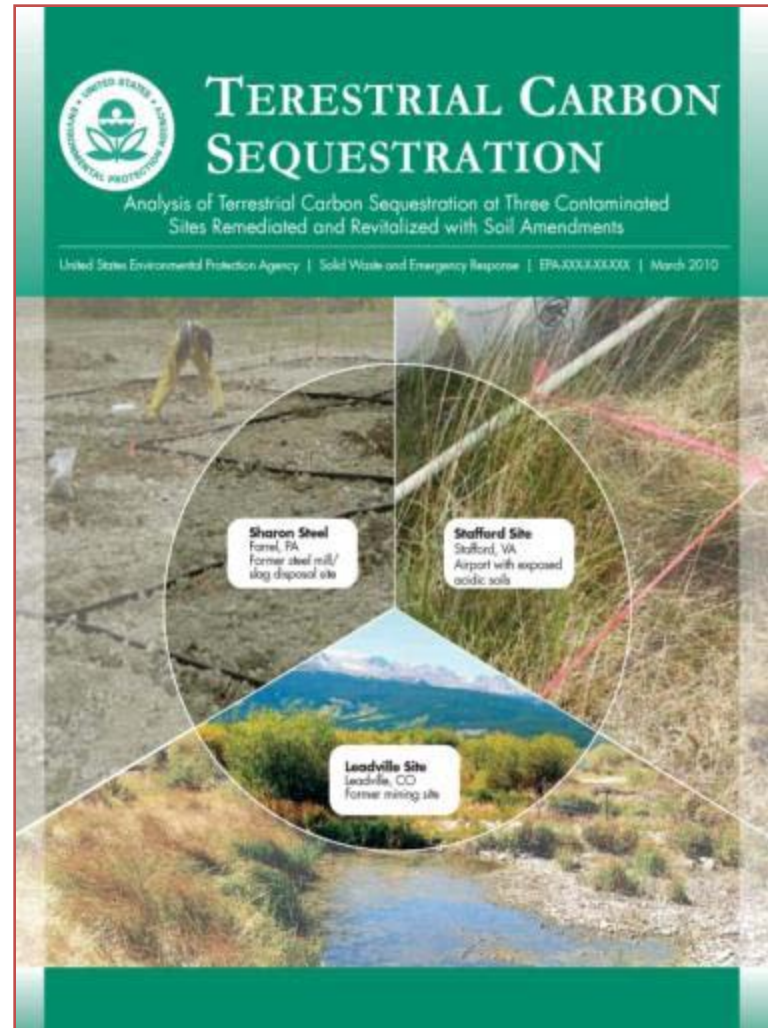
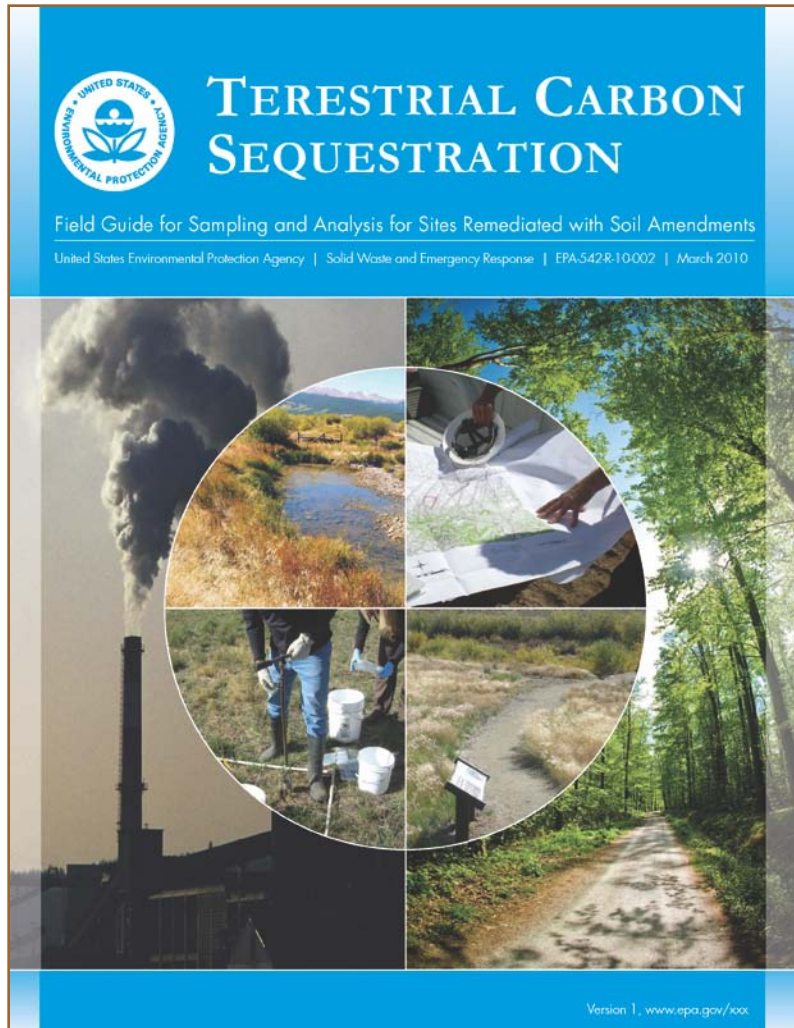
- Effective remedy
- Cost savings
- Healthy soil
- Diverse vegetation
- Carbon storage
- Surface & ground water protection
- Increased property value, tax revenues
- Passive recreational opportunities
- Green infrastructure



# Cost Savings

Site	COCs	Soil Amendment Remedy	% Cost Savings
California Gulch, Leadville, CO	Pb, As, other metals Acid mine drainage	Lime biosolids	50 (\$2.5 M)
College Park Landfill, Beltsville, MD	Vinyl chloride, benzene, As, Cd, Fe, Pb, Mn, Ni	Compost (fly ash, animal waste, plant waste)	54 (\$5.4 M)
Palmerton Zinc, Palmerton, PA	Pb, Zn, Cd	Lime, potash, sewage sludge, mushroom/leaf litter compost	96 (\$462 M)
Sharon Steel, Farrell, PA	Metals, PAHs, PCBs, pesticides	Biosolids cap	59-84 (\$16-40 M)

EPA's Field Sampling Protocol plus an Analysis of TCS at Leadville, Sharon Steel, & Stafford  
<http://www.cluin.org/ecotools/seq.cfm>

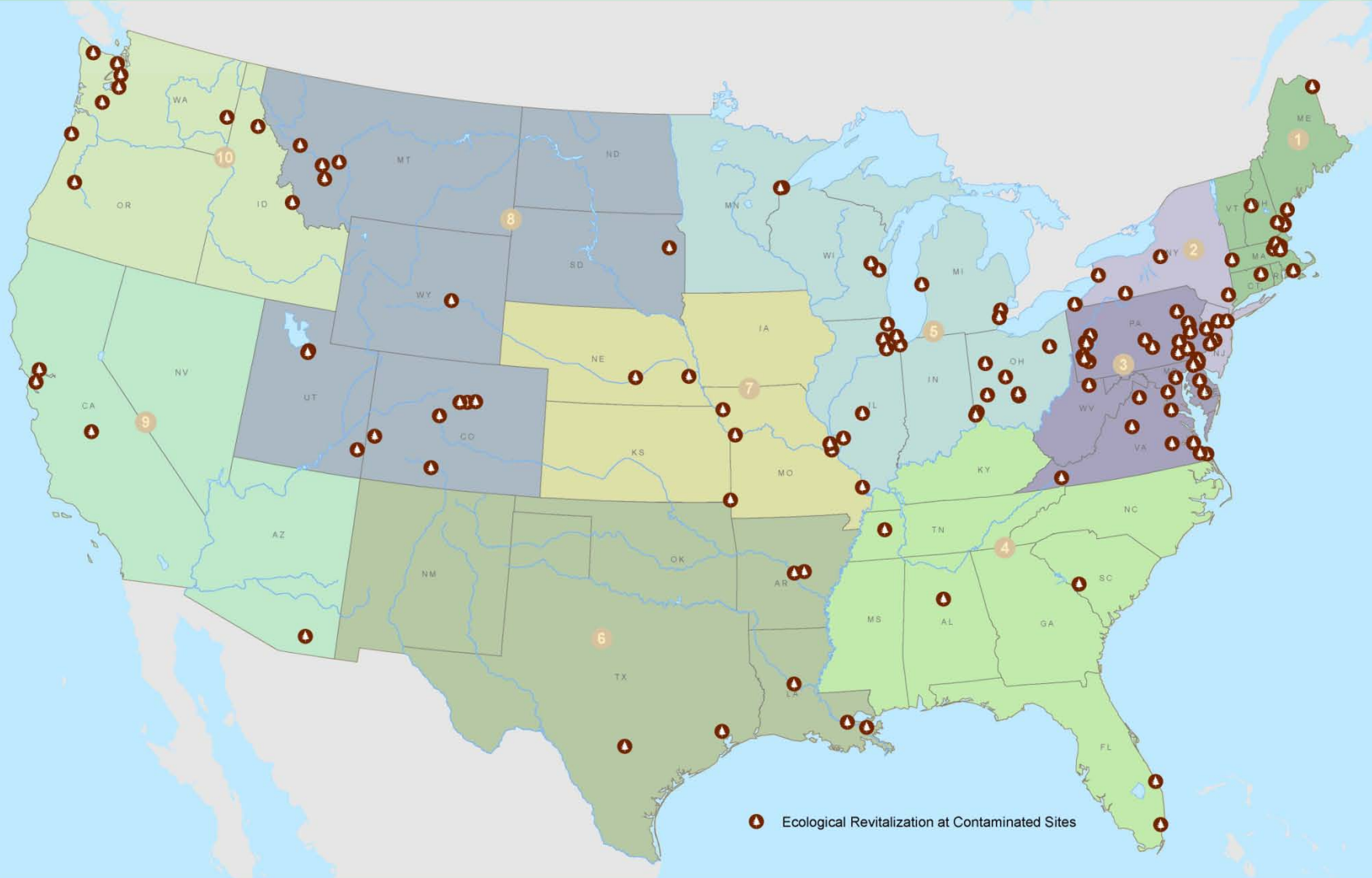


# Communication

- Conference presentations
- Web-based seminars
- Training courses
- Forum discussions
- Site documentation
- Project profiles database
- EcoTools website



# Mapping Ecological Revitalization Success on Contaminated Lands



# EcoTools

## Tools for Ecological Land Reuse

<http://www.cluin.org/ecotools>

- EPA Presentations
- Principles for Ecological Land Reuse
- Soil Amendments
- Terrestrial Carbon Sequestration
- Plants and Revegetation
- Urban Gardens
- Act Locally
- Organizations and Resources
- Land Revitalization Assistance
- Case Study Profiles

The screenshot shows the website [www.cluin.org/ecotools/](http://www.cluin.org/ecotools/). The header includes the EPA logo, the text "United States Environmental Protection Agency", "Technology Innovation and Field Services Division", and a search bar. Below the header is a navigation menu with tabs for "Technologies", "Contaminants", "Issues", "Strategies & Initiatives", "Vendors & Developers", "Training & Events", and "Additional Resources". The main content area features a large banner for "EcoTools Tools for Ecological Land Reuse". Below the banner is a section titled "ECOTOOLS SPOTLIGHT" with several bullet points. To the right of the spotlight is a "Home" section with a list of links. On the far right, there is a "Staying Connected" sidebar with icons for "Live Events", "Podcasts", and "RSS Feeds". At the bottom right, there are links for "Contact Us", "Site Map", "Site Tour", and the "USA.gov" logo.

# Webinar Series Based on this Forum

December 12, 11:00 am – 1:00 pm PT

December 19, 11:00 am – 1:00 pm PT

Register at [www.cluin.org](http://www.cluin.org)