

# **SURF US: Achievements & Future of the Organization**

Conference Theme: Conceptual Framing

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# Agenda

- SURF US Overview
- Guidance and Publications
- Current Initiatives
- Vision for the Future
- Q&A



@SR\_Forum



**LinkedIn Group:**  
**Sustainable  
Remediation Forum**

# SURF Overview

## Sustainable Remediation

is defined as site assessment and remediation that protects human health and the environment while maximizing the environmental, social, and economic benefits throughout the project life cycle (SURF, 2013).

# SURF Overview

## About SURF

- Founded in 2006
- Incorporated as a non-profit in 2010
- Collaborate with International SURF organizations
- Life cycle sustainability perspective: environmental, social, and economic pillars

## Members

- Industry
- Regulatory
- Government
- Vendors
- Academics
- Consultants

## About SURF

- **GOLD**: Boeing, CH2M Hill, DuPont, Shell
- **SILVER**: AMEC, BP, CDM Smith, Haley & Aldrich, Langan Engineering, Terra Systems, URS
- **BRONZE** AECOM, GE Research, Tetra Tech

# SURF Mission Statement

The mission of SURF is to maximize the overall environmental, societal, and economic benefits from the site cleanup process by:

- Advancing the science and application of sustainable remediation
- Developing best practices
- Exchanging professional knowledge
- Providing education and outreach

# SURF Value Proposition

- Alignment with corporate sustainability goals
  - Reduced remediation costs and long term liabilities
  - Environmental footprint reduction
  - Social responsibility & public outreach
- Innovative thinking, research & real world application
- Peer Benchmarking (domestic & int'l)
- Access to leading edge case studies
- Opportunities to collaborate on publications
- Networking & access to subject matter experts
- Academic outreach & mentoring

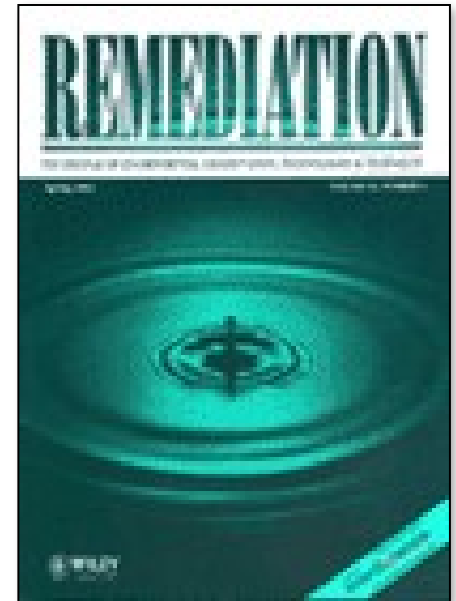
# Guidance and Publications

- Sustainable Remediation White Paper—Integrating Sustainable Principles, Practices, and Metrics Into Remediation Projects (2009)
- Framework for Integrating Sustainability into Remediation Projects (2011)
- Guidance for Performing Footprint Analysis and LCA for the Remediation Industry (2011)
- Metrics for Integrating Sustainability Evaluations into Remediation Projects (2011)

<http://www.sustainableremediation.org/library>

# Guidance and Publications

- Sustainable Remediation Panel (Remediation Journal, quarterly Q&A)
- Integrating Remediation and Reuse to Achieve Whole-System Sustainability into Remediation Projects (2013)
- Groundwater Conservation and Reuse at Remediation Sites (2013)
- Integrating Groundwater Conservation and Reuse into Remediation Projects (2014)



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# Technical Initiatives

- Sustainable Remediation Initiative (SRI)
- Social Aspects of Sustainable Remediation
- Groundwater Reuse
- Case Study Initiative (CSI)
- Academic Outreach Initiative (AOI)



# Sustainable Remediation Initiative

Collaborative effort involving SURF, the Interstate Technology and Regulatory Council (ITRC) and the American Petroleum Institute (API) to promote acceptance and implementation of SR.

- Goal is to inform, educate, and promote the acceptance of SR frameworks, techniques, tools, metrics, and processes
- Seeks to play a significant role in developing strategies and plans on how to accomplish education and outreach to stakeholders.
- Promote and implement sustainable remediation at federal and state level
- USEPA Executive Forum: USEPA and SRI leadership, state stakeholders, June 2014



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# Social Aspects Initiative

Developing a journal article to set the foundation for evaluating the social and socio-economic aspects of a remediation project's life cycle.

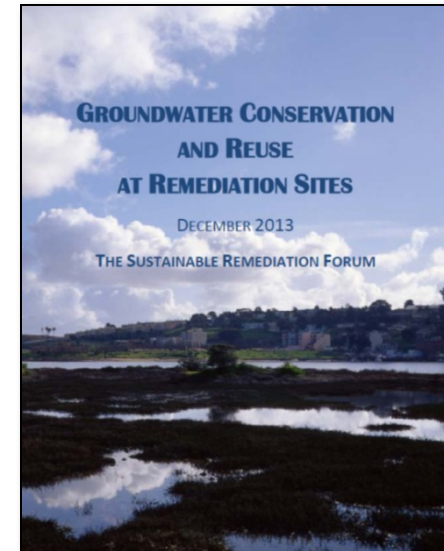
- In the remediation sector social impacts can be divided into two major categories.
  - Community- local level, property value, congestion, point emissions, land re-use, employment
  - Regional and Global – human health and the environment, and financial investments to alleviate global issue (climate change)
- Provide overview of current tools and guidance focused on environmental footprint
- Set foundation for the development of methods and guidance for evaluating social and economic aspects of SR

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# Groundwater Reuse Initiative

Focus on shifting the paradigm of cleanups and encouraging the reuse/repurposing of treated GW at cleanup sites.

- First phase generated two publications:
  - “Conservation and Reuse of Groundwater at Remediation Sites”
  - “Integrating Groundwater Conservation and Reuse into Remediation Projects”
- Documents consider impediments to conservation and reuse, and provide case study examples where reuse of treated GW was accomplished.
- Phase II Outreach - conference presentation, networking w/ water conservation specialists & regulatory bodies to advance this practice worldwide




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# Case Studies Initiative

Compiling a case study inventory showing examples of successful sustainable remediation implementation.

- The Case Study Initiative (CSI) will create a searchable database of peer-reviewed case studies following a consistent format.
- Actively soliciting submissions from SURF members, including international professionals
- The case studies will be available as a resource for sharing best practices
- Workshop Thursday 18 September 11.20am – 1.20pm

|   |  |
|--|--|
| SURF Case Study #0001<br>Last Updated: May 13, 2014  |  |
| <b>Case Study:</b> Site Name, city, state (may be anonymous, but suggest at least including state) (e.g., Former Acme Petroleum Terminal, Anytown, New Jersey or Former Petroleum Terminal, New Jersey). Note: case studies with "green washing" or strong commercial messages will not be accepted by SURF. |  |
| <b>Site Overview</b>   | Basic site information – Industrial, commercial, residential, mixed use, former sites (primarily those that caused contamination), current status<br><br>Example – The site is in an industrial area of southern New Jersey located along the Delaware River. It had been used as a petroleum terminal from 1983 to 1999 and is currently capped with an electrical solar field that powers the groundwater extraction and treatment system.                                     |
| <b>GSR Project Outcome</b>   | Describe estimated environmental footprint reductions, and social economic benefits anticipated or realized; descriptions can be qualitative and/or quantitative (Note: this may be the longest section of the case study) <ul style="list-style-type: none"><li>• Outcome 1 (include metric, for each)</li><li>• Outcome 2</li><li>• Outcome 3</li></ul>  |
| <b>Background &amp; Drivers</b>  | Discuss driver for GSR portion of the project; can include any other relevant drivers (e.g., development potential prompted owner to undertake voluntary cleanup). <ul style="list-style-type: none"><li>• Background and drivers 1</li><li>• Background and drivers 2</li><li>• Background and drivers 3</li><li>• Example - GSR promoted by corporate sustainability program</li></ul>   |
| <b>Regulatory Program</b>  | Type of regulatory program (e.g., voluntary, state order, RCRA, Superfund, LUST)   |
| <b>Site End Use</b>  | Describe land use after project (e.g., residential, commercial, industrial, mixed use), including any social uses or particular economic attributes of the end use.  |
| <b>Contaminants of Concern and Impacted Media</b>  | List the primary chemicals of concern; it is okay to list groups of chemicals (e.g., chlorinated VOCs, BTEX and other gasoline constituents). Include whether COCs are present in soil, groundwater, sediment, surface water, indoor air, or other media. <ul style="list-style-type: none"><li>• COC 1 in Media 1, Media 2, etc.</li><li>• COC 2 in Media 1, Media 2, etc.</li><li>• COC 3 in Media 1, Media 2, etc.</li><li>• Example - VOCs in soil and groundwater</li></ul> |



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# Academic Outreach Initiative

Engages with members of the academic community, including faculty and students, and encourages inclusion of sustainable remediation in curricula and research.

- Supports student chapter member's travel to SURF events
- Current Student Chapters:
  - Colorado School of Mines
  - Colorado State University
  - Clarkson University
  - University of Illinois - Chicago
- Plans to develop student competition and is exploring funding for graduate student research projects

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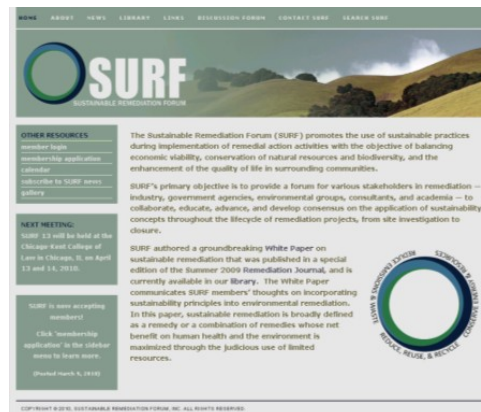
# Vision for the Future



- Continue mission of education and outreach
- Develop strategic partnerships to collaborate on initiatives and achieve common goals
- Continue and expand International collaboration
- Expand membership and visibility
- Advance the science of SR and lead technical initiatives
- Applying the above to “Transition” to the Implementation of the SR triple bottom line as a Standard Remediation Practice in Federal and State Programs and Internationally

# Questions?

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## UPCOMING MEETINGS:

**SURF 27: 11 – 12 November 2014, Ann Arbor, MI, USA**

**SURF 28: 24 – 26 February 2015, Arlington, VA, USA**