



UPCOMING MEETINGS:

SURF 21 – December 12-13, 2012
National Academy of Sciences Building,
Washington DC

Registration and agenda for SURF 21
will be available on the SURF website
soon: www.sustainableremediation.org

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Environmental Services
stew.abrams@sustainableremediation.org

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angela.fisher@sustainableremediation.org

Mike Miller, CDM Smith
mike.miller@sustainableremediation.org

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curt.stanley@sustainableremediation.org

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dan.watts@sustainableremediation.org

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paul.favara@sustainableremediation.org

SURF REPORT – FALL 2012

SuRF ANZ: A Role in Developing Sustainable Land and Groundwater Contaminant Remediation Practice

Dr. Garry Smith, SuRF ANZ Forum Committee Chair

Sustainable remediation has emerged as a topic of intense interest and debate in Australia. Earlier initiatives in other countries, including the USA and UK, forming national Sustainable Remediation Forums (“SURFs”) showed immediate evidence of the professional benefits that such associations can bring. A dialogue between Australian and New Zealand remediation practitioners, regulators, and other stakeholders commenced in 2009 and SuRF ANZ was officially launched in 2012.

Ecologically Sustainable Development is a requirement of environmental legislation in the separate national jurisdictions of Australia and New Zealand. Several ANZ conferences have included papers and workshops on sustainable remediation including discussion of the practicability of remediation in the context of Australian and New Zealand laws and regulations.

Australia has well-established statutory systems involving independent, third-party auditors drawn from the private sector and delegated by state government regulatory agencies to assess the results of remediation and to formally certify that land is suitable for use. Work is carried out in accordance with detailed guidelines issued by regulatory agencies. The audit system is not inconsistent with the application of sustainability principles and can, for example, allow for retention and the long-term management of contamination on sites using appropriate risk assessment-based processes.

(Continued on Page 6)

 **Did you know that SURF is on LinkedIn?** 

LinkedIn members: Search for “sustainable remediation forum” in Groups to join SURF’s discussion group on the LinkedIn professional networking site (www.linkedin.com). **Look for the SURF logo!**



COMMITTEE CHAIRS:

Communications and Outreach

Stephanie Fiorenza, BP
stephanie.fiorenza@bp.com
L. Maile Smith, Northgate Environmental
maile.smith@ngem.com
Jake Torrens, AMEC
jake.torrens@amec.com

Academic Outreach Initiative

Michael Miller, CDM Smith
millerme@cdmsmith.com
Pamela Dugan, Carus Corp.
pamela.dugan@caruscorporation.com

Government Outreach Initiative

Buddy Bealer, Shell
leroy.bealer@shell.com

Finance

Brandt Butler, URS
brandt_butler@urscorp.com

Meetings and Programs

Stephanie Fiorenza, BP
stephanie.fiorenza@bp.com

Membership

Dan Watts, NJIT
watts@njit.edu

Nominations

Paul Favara, CH2MHILL
paul.favara@ch2m.com

Technical Initiatives

Karin Holland, Haley & Aldrich
kholland@haleyaldrich.com

Framework Initiative

Karin Holland, Haley & Aldrich
kholland@haleyaldrich.com

Metrics Initiative

Brandt Butler, URS
brandt_butler@urscorp.com

Life Cycle Assessment Initiative

Paul Favara, CH2MHILL
paul.favara@ch2m.com

Contact chairs for volunteer opportunities!

ABOUT SURF

The Sustainable Remediation Forum (SURF) was initiated in late 2006 to promote the use of sustainable practices during remedial action activities with the objective of balancing economic viability, conservation of natural resources and biodiversity, and the enhancement of the quality of life in surrounding communities. 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

Greetings from SURF! This newsletter is published quarterly by the SURF Communications and Outreach Committee to provide you with highlights of SURF's activities and opportunities and developments in the field of sustainable remediation.

The SURF website, www.sustainableremediation.org, continues to be our primary resource for sharing the latest and greatest news about SURF and sustainable remediation. Our Links page provides a one-stop-shop for resources, tools, information, and documents. The Calendar shows remediation, sustainability, and related conferences, as well as deadlines for submitting abstracts. Suggestions for additions and improvements are welcome by using the Contact SURF form on the website or by emailing administrator@sustainableremediation.org.

IN THIS ISSUE:

- SuRF ANZ – An Update from Dr. Garry Smith, Forum Committee Chair
- SURF 21 Announcement and Call for Sponsors
- Sustainable Remediation ISO Proposal
- Army GSR Study Report
- Upcoming Conferences
- SURF Student Paper Competition at Battelle

Follow SURF on  @SR_Forum



SURF Member Teleconference

The 2012 Board of Trustees invites all SURF members to a one-hour teleconference on Tuesday, October 9th at 1:00 pm EDT. The focus of the call will be a Q&A session, sharing information about 2012 Board activities, and updates on the progress of technical initiatives.

General agenda:

- Welcome and background to the teleconference
- 2012 Board actions
- SURF 21 update
- Technical initiative updates
- Communications and Outreach update
- Regulatory outreach initiative update
- Academic outreach initiative update
- Q&A session

The teleconference is only open to SURF members. Email communications@sustainableremediation.org for more information or to obtain the dial-in code.

Next SURF Meeting – SURF 21

Join us for SURF 21, December 12-13, 2012. Representatives from sustainable remediation organizations throughout the world will travel to Washington, DC to meet at the National Academy of Sciences Building, 2101 Constitution Avenue, N.W. Our invited speakers will discuss how their organizations are structured and how each functions and interacts with government agencies, industries, and the public. We anticipate the sharing of regulatory policy drivers/roadblocks, lessons learned, key documents and tools, and illustrative case studies. The information and opinions shared at this meeting will be compiled into a *Global Perspectives on Sustainable Remediation White Paper*, to be published in early 2013.

Confirmed international speakers include:

- Toshihito Kondo, Fujita Corporation, Japan
- Sander Eskes, AECOM, Brazil
- Jonathan Smith, Shell UK
- Stella Karnis, CN, Canada
- Mengfang Chen, Institute of Soil Science, Chinese Academy of Sciences
- Lucy Wiltshire, Honeywell UK/NICOLE
- Paul Nathanail, University of Nottingham/ISO

Also invited (speaker TBD): US EPA and SuRF ANZ.

Additionally, SURF has invited distinguished members of Congress to give welcoming remarks at SURF 21.

SURF 21 Sponsorship Opportunities

To help SURF keep its registration fees low and benefit from the unique exposure this meeting will provide, please consider sponsoring SURF 21. Sponsorships are customizable to fit your organization's needs. Suggested packages include:

Platinum—\$2500: Sponsors will receive acknowledgment on the SURF website, in pre- and post-meeting email announcements, on-stage recognition by the meeting facilitator, and signage at the registration desk and breakfast/lunch/refreshment tables.

Gold—\$1500: Sponsors will receive acknowledgment in pre- and post-meeting email announcements, on-stage recognition by the meeting facilitator, and signage at the registration desk and breakfast/refreshment tables.

Silver—\$1000: Sponsors will receive acknowledgment in pre- and post-meeting email announcements, on-stage recognition by the meeting facilitator, and signage at the registration desk.

Please contact the SURF Treasurer by October 5, 2012 to become a SURF 21 sponsor.



**THANK YOU TO SURF 21 SPONSOR
GEOSYNTEC CONSULTANTS**

SURF 21 registration will be available shortly on the SURF website (www.sustainableremediation.org). Additional information about the agenda and meeting logistics will be posted on the Meetings and Bulletin Board pages. Check back frequently for updates. Seating will be limited, so please register early.

Army Green and Sustainable Remediation Study Report

The Army has finalized the report for the green and sustainable remediation (GSR) study "*Evaluation of Consideration and Incorporation of GSR Practices in Army Environmental Remediation*" performed for the Office of the Department of Army Assistant Chief of Staff for Installation Management (ACSIM). The objectives of the Study were to: (1) Follow the consideration and incorporation of GSR practices on Army environmental remediation projects; (2) Ascertain the effectiveness of the GSR practices considered and incorporated; and (3) Provide procedures by which GSR practices shown to be effective can be identified, considered, implemented and documented by Project Teams working on Army sites.

The Report describes the Study implementation and results, and includes a detailed approach for performing GSR evaluations on Army environmental projects ("GSR Approach"). A preliminary GSR Approach was developed for the Study, and was then applied to 12 pilot projects. The GSR Approach was then revised to incorporate lessons learned during the pilots. The revised GSR Approach is included in Appendix A of the report. The Report is posted at https://casi.erdc.usace.army.mil/focusareas/green_remediation/?contentRegion=Item&id=63675. For more

information, please contact Carol Dona, Study Project Manager, at carol.l.dona@usace.army.mil.

Sustainable Remediation ISO Proposal

A proposal has been submitted to the International Organization for Standardization (ISO) for a Sustainable Remediation Standard. The proposal was discussed at the TC190 meeting in Helsinki on September 10, 2012, and voting on the proposal closes in November. Paul Nathanail, University of Nottingham, led the proposal effort. The proposed standard will provide guidance on sustainable remediation. In particular:

- A standard terminology and information about the key components and aspects of sustainable remediation.
- Help on the implementation of sustainable remediation.

Paul will be in attendance at SURF 21 in Washington, DC, to discuss these recent developments and progress toward an ISO sustainable remediation standard.

SUSTAINABLE REMEDIATION EVENTS AND CONFERENCES

New RE3 Conference – November 12-14, 2012 – Atlantic City, New Jersey

Attend the new RE3 Conference to learn about what your options are when dealing with properties contaminated with heavy metals and organics. Attend over 40 presentations focused on remediation technologies and methodologies that are successfully being employed, as well a full program designed to educate developers and property owners on state and federal incentive programs for Brownfields, financing and more. Walk away with strategies and approaches that can be used in today's environment. Each attendee will also receive a Certificate of Attendance from the



Association of Environmental & Engineering Geologists (AEG) with continuing education units listed.

SURF Board member Stew Abrams will be making a presentation on SURF's behalf, titled *Sustainable Remediation: An Overview of the Principles and Practices*.

Visit re3conf.com for more details and to register today. Special registration rate for SURF members: contact communications@sustainableremediation.org for a discount code!

23rd Annual International Conference on Soil, Water, Energy, and Air – March 18-21, 2013 – San Diego, California

The Annual AEHS Foundation Meeting and International Conference on Soil, Water, Energy, and Air offers attendees an opportunity to exchange findings, ideas, and recommendations amongst the environmental science community in a professional setting. The strong and diverse technical program is customized each year to meet the changing needs of the environmental field. This forum facilitates the exchange of information of technological advances, new scientific achievements, and the effectiveness of standing environmental regulation programs.

Platform and poster sessions feature research, case studies, and the presentation of new programs. Exhibitions augment the conference program and bring applied technology to attendees. Focused workshops provide attendees with practical information for immediate application. Daily socials provide networking and discussion.

Registration and Conference Programation will be available on AEHS's website at <http://www.aehsfoundation.org/west-coast-conference.aspx>.

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Second International Symposium on Bioremediation and Sustainable Environmental Technologies – June 10-13, 2013

The Second International Bioremediation and Sustainable Environmental Technologies Symposium will be held June 10-13, 2013, at the Hyatt Regency Riverfront in Jacksonville, Florida. The Call for Abstracts brochure and information about sponsors, abstract submittal procedures, exhibits, and student paper and short course proposal due dates will be available at <http://conferences.battelle.org/bioremediation>.

Abstracts to be considered for the program will be due October 31, 2012.

The Bioremediation and Sustainable Environmental Technologies Symposium incorporates topics beyond those addressed by the In-Situ and On-Site Bioremediation Symposium, held biennially from 1991 through 2009. The revised Symposium name and scope reflect bioremediation's maturity and new directions in environmental remediation research and application. Bioremediation continues to be a core area for the Symposium, but the scope also encompasses the use of biological technologies and strategies to assess risks to human and ecological health and support the development of sustainable practices.



The 2011 Symposium was attended by nearly 850 scientists, engineers, regulators, site managers, and other environmental professionals, representing universities, government agencies, consultants, and R&D and service firms from around the world. The 530 platform and poster presentations were given in 55 specialized sessions, and four panel discussions were conducted.

ITRC Internet Based Training

In November 2011, the Interstate Technology & Regulatory Council (ITRC) GSR Team published “Green and Sustainable Remediation: A Practical Framework,” which provides a generalized framework intended to be flexible and scalable to each phase of the remedial process. The GSR Framework covers both remedial planning and implementation. The guidance also provides tools to perform sustainability evaluations and case studies. Many SURF members have led and participated in the ITRC GSR Team that developed this guidance. ITRC offers online training in the use of the guidance document. One training session remains in 2012 and will be held on **November 27**. Information is available on the ITRC website at www.itrcweb.org.

SURF ANZ (continued from Page 1)

In New Zealand there is over-arching legislation for environmental compliance. Management of contaminated land discharge is administered by regional and district councils under independent planning rules and national guidance documents and there is a new National Environmental Standard for contamination.

Australia and New Zealand use a generally well-accepted “clean-up to the extent practicable” approach that considers the technical feasibility, logistics and financial aspects of pursuing clean-up, including

groundwater contamination. This has resulted, where appropriate, in regulatory acceptance of remedial solutions that practically cannot achieve complete clean up. Such an approach is compatible with consideration of the principles of sustainability during selection of remedial strategies.

Sustainable remediation practice as applied in the region is compatible with important established and emerging cross-disciplinary sustainable development practices including land-use planning (‘brownfields’), urban design (‘urban renewal’) and transport (‘transit oriented development’). SuRF ANZ is keen to improve knowledge in this important area.

Australia and New Zealand industries, consulting companies and regulatory agencies are broadly supporting the consideration and application of the principles of sustainability for land and groundwater remediation projects. Nevertheless the evolution of formal frameworks for sustainable remediation in Australia, where there are overlapping State and commonwealth jurisdictions, requires unifying tools and policies on practical sustainable remediation outcomes.

The objectives of SuRF ANZ include:

- Encouraging and managing the activities of the various working groups;
- Providing website-based sustainable remediation guidance and tools;
- Organising meetings and forums in which sustainable remediation is discussed;





- Facilitating member contact with international sustainable remediation associations and developments; and
- Contributing to a National Remediation Framework currently being developed through the Australian Cooperative Research Centre CRC Care.

The organisation and operation of the Australian arm of SuRF ANZ was initially supported by CRC CARE. The Australasian Land and Groundwater Association (ALGA) has now taken on the important role of supporting SuRF ANZ.

The early work of SuRF ANZ included:

- Understanding the interests of the Australian and New Zealand remediation industries;
- Development with stakeholders in 2011 of a draft *Framework for Assessing the Sustainability of Soil and Groundwater Remediation* by interested participants;
- Confirmation by members of a 2012-2013 work plan to establish working groups on ANZ-specific issues;
- A series of conferences, seminars and workshops including green and sustainable remediation metrics.

The SuRF ANZ work programme for 2012 included the establishment of the following working groups to undertake similar policy development for ANZ as occurred in the USA, UK, and elsewhere:

1. Sustainable Remediation Framework
2. Sustainable Remediation Metrics
3. Sustainable Remediation Case Examples
4. Planning for Sustainable Remediation
5. EcoForum Conference Program Development

The reports of these working groups will be posted on the SuRF ANZ website www.surfanz.com.au by the end of 2012.

COMPETITIONS, SCHOLARSHIPS, AND GRANTS

SURF Student Paper Competition

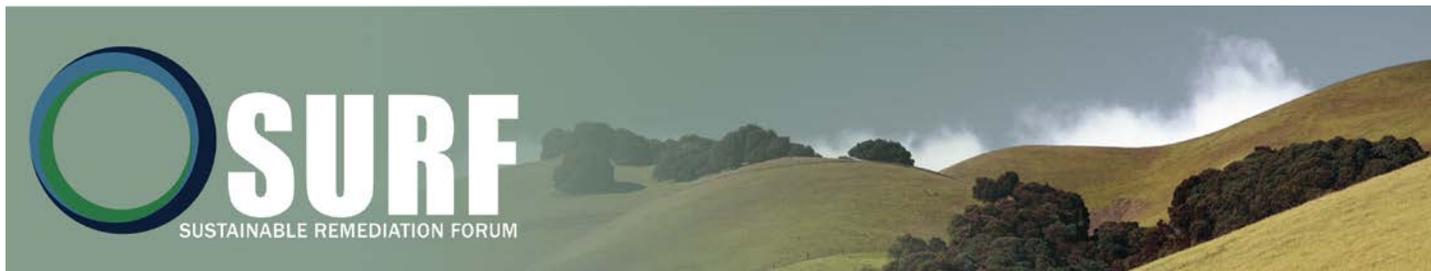
SURF is hosting a **Student Paper Competition** at the Second International Symposium on Bioremediation and Sustainable Technologies, to be held in Jacksonville, Florida June 10-13, 2013. General requirements for eligibility, scope and review criteria, format, and submission procedures are as described on the symposium website at <http://conferences.battelle.org/bioremediation/pdfs/StdntPprInstructions.pdf>. One SURF award will be granted, and the nature of that award will also be the same as described on the symposium website.

Papers eligible for the SURF award will include elements of sustainable remediation. Additional review criteria will evaluate the successful incorporation of sustainability into the project, and how environmental, economic, and social factors are addressed.

For more information on the SURF Student Paper Award, please contact Mike Miller at millerme@cdmsmith.com or Pamela Dugan at pamela.dugan@caruscorporation.com.

How to Establish a SURF Student Chapter

SURF encourages the use of principles and concepts of sustainable remediation through education, research, and dissemination of information. SURF believes that the goals of the profession can be achieved in part by encouraging the consideration, study, and application of sustainable remediation fundamentals, principles, and concepts at colleges and universities. To aid this effort, SURF welcomes the establishment of Student Chapters at institutions of higher education and will endeavor to assist their creation and activities.



The basic requirements to establish a Student Chapter are not complex; essentially there must be a faculty advisor and at least five student members, all of whom are members of SURF. The proposed chapter must qualify as a recognized student organization at the parent academic institution, or meet a few requirements if the academic institution does not recognize student groups. Guidance on starting a student chapter, details of the requirements, and a sample constitution is available on the SURF website (www.sustainableremediation.org/membership).

OTHER NEWS AND ANNOUNCEMENTS

New releases from the National Academies Press

Sustainability Considerations for Procurement Tools and Capabilities: Summary of a Workshop—To assist efforts to build sustainability considerations into the procurement process, the National Research Council appointed a committee to organize a two-day workshop that explored ways to better incorporate sustainability considerations into procurement tools and capabilities across the public and private sectors. The workshop was designed to help participants assess the current landscape of green purchasing tools, identify emerging needs for enhanced or new tools and opportunities to develop them, identify potential barriers to progress, and explore potential solutions. The document reviews the presenters' recommendations and tools currently used in sustainable procurement, such as databases for ecolabels and standards, codes, or regulations and other nontechnological tools such as policies, frameworks, rating systems, and product indexes.

Exposure Science in the 21st Century: A Vision and A Strategy—This report documents the increasing demands for exposure science information, for example to meet needs for data on the thousands of chemicals introduced into the market each year, and to better

understand the health effects of prolonged low-level exposure to stressors. Recent advances in tools and technologies—including sensor systems, analytic methods, molecular technologies, computational tools, and bioinformatics—have provided the potential for more accurate and comprehensive exposure science data than ever before. This report also provides a roadmap to take advantage of the technologic innovations and strategic collaborations to move exposure science into the future.

Regulators: Are you interested in making a presentation or preparing a poster for an upcoming SURF meeting? Are you interested in an in-house workshop to learn more about sustainable remediation initiatives, tools, and resources? Contact Buddy Bealer (Ieroy.bealer@shell.com) to learn more about these opportunities. Note that SURF waives registration fees for all invited speakers at SURF meetings.

Call for Case Studies for Sustainable Water Reuse Technical Initiative: The Sustainable Water Reuse Technical Initiative has been established under the leadership of Paul Hadley and Patrick Keddington. The Initiative is aimed at producing a document for increasing the sustainability of remedies by providing information on options for conserving and re-using groundwater associated with cleanups.

Do you have a case study or example of sustainable water reuse associated with a remediation project? The TI leads would love to hear more about it. Please send a description to Paul (paul.hadley@dtsc.ca.gov) or Patrick (pkeddington@haleyaldrich.com).



NEWSLETTER SUBMITTALS:

Deadline is the 15th of March, June, September, and December for the following quarterly issue. Contact the Newsletter Editor by email for submittal:

Amanda McNally,
newsletter@sustainableremediation.org

Submittals are subject to editing for space considerations.

Address Changes

Please submit to the SURF Secretary at secretary@sustainableremediation.org.

Circulation

The newsletter is circulated to about 500 individuals directly and is posted online at www.sustainableremediation.org.

Sponsorship

Sponsorship is a great way to demonstrate to your communities, clients, employees, or shareholders that you are committed to advancing the science and application of sustainable remediation.

As an appreciation for sponsorship:

- Your company or organization will receive complimentary SURF memberships and meeting registrations
- Your company's or organization's name will be displayed on the SURF website and hyperlinked to your webpage
- Your company's or organization's name will be displayed in the SURF newsletter and announced during SURF events
- Your company or organization may use the SURF Sponsor logo

To inquire about sponsorship options, contact membership@sustainableremediation.org.

SURF MEMBERSHIP

Join SURF or Renew your Membership TODAY!

The practice of sustainable remediation is gathering world-wide momentum, and SURF is a rapidly growing and influential organization. By joining SURF, you establish partnerships and build relationships with a wide variety of stakeholders: industry and agency peers, customers, clients, members of academia, technology vendors, and the public. You'll have access to members who are helping to shape green and sustainable remediation guidance and assessment tools, academics and their research on innovative remediation technologies, and discussions about the state of the practice and lessons learned. The SURF website, meetings, and communications provide a clearinghouse and source for the latest information about policy, case studies, best practices, and educational opportunities.

SURF is engaged in several exciting technical initiatives, including developing a consensus-based framework for sustainable remediation; fostering standardized sustainable remediation criteria and metrics; and promoting consistency, transparency, and best practices for Life Cycle Assessment.

The benefits of SURF membership are many, but simply put, you will improve your understanding of sustainable remediation, network with hundreds of other professionals, enhance your career opportunities, and have fun doing so.

SURF has several membership levels based on an individual's qualifications: Regular Member (dues are \$150 annually), Government Member (dues are \$100 annually), Academic Member (dues are \$100 annually), and Student Member (dues are \$25 annually).

The term for all classes of Members is February 1 through January 31 of the following year.

Learn more and apply for membership at www.sustainableremediation.org/membership.

~ Registration renewals received after October 1st apply to next year! ~