



Quarterly Update

September 2002

Plans in full swing for ITRC's Fall Meeting

What better place to be during a key election year than in the thick of it all in our nation's capital? Plan to vote early on November 5 and then travel to Washington, D.C. for ITRC's Fall Meeting on November 6–8. To keep you plugged in, we're investigating election evening outings. Watch the Web site for updates on possible activities for both Democrats and Republicans.



In addition to discussions on the election impacts on ITRC and its members, the primary meeting focus will be on ITRC itself. All sessions planned for November 7 will help build the collective understanding of ITRC's products, services, and mission among the members and partners who are the backbone of the organization. Discussion sessions will enable participants to take part in determining the focus and direction of future ITRC activities. While November 7 is open to nonmembers, the agenda and discussions focus on topics of greater interest to our members.

In addition, we've planned two days, November 6 and 8, for 2002 technical teams to wrap up work on their activities for this year. Technical team meetings are open to nonmembers by invitation. There will be special sessions on November 6 and 8 for ITRC's points of contact (POCs) and their invited guests.

Please go to the ITRC Web site at www.itrcweb.org for the current agenda, travel and hotel information, and to register. Registration closes October 4.

DoD and ITRC strengthen partnership

In July, the U.S. Department of Defense (DoD) formalized its relationship with ITRC by signing a new cooperative agreement to provide continued support to the organization. DoD began working with ITRC in 1999.

Recognizing that ITRC's work to identify and overcome regulatory barriers to the use of new environmental technologies benefits DoD's environmental cleanup mission, DoD agreed to provide significant funding and in-kind support to ITRC over the next five years.

The cooperative agreement allows DoD and ITRC to better work collaboratively and provides a framework based upon ITRC's Five-Year Program Plan for continuing joint efforts to develop consistent regulatory approaches for reviewing and approving innovative technologies to clean up DoD sites.

Board ranks 28 proposals

With input from state POCs and the Federal Remediation Technology Roundtable, the Board of Directors met in August during the Midyear Review and ranked the 28 proposals submitted for funding under ITRC's Five-Year Program Plan for the 2003–2007 period. The process used for prioritizing among the proposals is well thought out to ensure that meritorious proposals having high impact for states are balanced against federal agencies' and funding sponsors' needs for technology solutions.

The Board's deliberations included considering how POCs and FRTR had ranked each of the proposals. The Board also met with team leaders at the Midyear Review to assess the progress of active ITRC teams.

At the Midyear Review, each member of the Board scored the proposals, and then the individual scores were averaged to get an overall Board score for each proposal. Recognizing that ITRC funding sponsors have specific expectations regarding the inclusion of certain projects within ITRC's scope of work, the Board moved the 10 projects associated with specific sponsors to the top of the ranking in order of their overall Board scores.

Divergent opinions among Board members about the proper rankings for projects falling in the middle of the range on the ranking sheet led to a decision that each Board member would have 25 points to cast for the remaining 18 projects, and each member would cast no more than 5 points for any one project. The resulting scores for each project were tabulated to derive final adjusted Board scores for each project.

Still work to be done

To finalize the budget for the coming years, the Board still has a lot to do. The Planning and Budget Committee of the Board will refine estimated funding levels from ITRC sponsors, review expected costs for activities not associated with teams, review individual project budgets, and then phase projects into the 2003–2007 period as resources permit using the final ranking results in allocating funds. It is hoped that the final decision on projects and funding levels can be announced at the Fall Meeting or before.

To see the projects submitted for ITRC funding and the rankings of these projects by states, FRTR, and the Board, go to the ITRC Web site (www.itrcweb.org) and select "FYPP." There are links for "2003-2007 Board Ranking Results" and "2003 Project Ranking Data."

Nominations sought for ITRC Board

A seven-member Board of Directors provides overall direction for ITRC. Members of the Board of Directors represent the various groups important to ITRC: state environmental agencies, industry, public stakeholders, and state associations. Representatives from federal agencies and state associations serve as exofficio, or nonvoting, members.

The following positions (three-year terms) are open beginning in January 2003 on the ITRC Board of Directors. Each of these positions is currently open only to state employees:

ITRC Co-Chair—Brian Griffin, who is Oklahoma Secretary of the Environment, is currently serving the final year of Brian Sogorka’s (N.J.) three-year term. Secretary Griffin has been requested and officially nominated by the Board to stand for election for the next three-year term beginning in 2003. He has kindly agreed to so. Co-chairs, who are elected by the general ITRC membership, appoint the other voting Board members.

ITRC State Engagement Coordinator—Paul Hadley (Calif.) will complete his three-year term in this position in 2002.

ITRC Team Leader Liaison—Gary Baughman (Colo.) is finishing up his three-year term in this position.

ITRC is accepting nominations from its membership until October 18, 2002. (See the nomination form below.) At the 2002 Fall Meeting, nominated individuals will accept or decline their nominations for ITRC co-chair, and the members will vote for and elect a new state co-chair. In accordance with ITRC governance, the two co-chairs will then consult with the rest of the voting members of the Board to select a new State Engagement coordinator and a new team leader liaison.

The co-chairs are selected by the full ITRC membership on a rotating basis every three years. All voting members of the Board serve three-year terms. Nominated individuals do not have to be current ITRC members. The three new Board members shall officially begin their terms on January 1, 2003.

The ITRC Board of Directors conducts its business openly, mainly in conference calls and a few meetings over the course of a year. The Board’s goal is to make decisions among its members (including the nonvoting, or exofficio, members of the Board) by consensus.

The Board makes decisions regarding business plans, funding plans, priority work areas, budget allocations and scope of work, funding requests, reconciliation of available funding with scope of work, changes in ITRC management structure and procedures, appointment of public and tribal stakeholders to ITRC, appointment of team leaders, selection of ITRC program director, and selection of ITRC support contractors and subcontractors.

NOMINATION FORM: ITRC BOARD OF DIRECTORS

Please return by fax, (202) 624-3666, by October 18. Three positions are available—one Board co-chair, one State Engagement coordinator, and one team leader liaison. You may nominate yourself. You may nominate more than one person for each position. Please copy this form as needed.

I nominate the person below as a *(please check one)*

- Board Co-Chair** **State Engagement Coordinator** **Team Leader Liaison**

<i>(Please Write Name of Nominee Above)</i>	<i>(Please Write Organization of Nominee Above)</i>

Your Name _____

Your Organization _____ Your Phone _____

STATE ENGAGEMENT UPDATE

❖ States evaluate ITRC proposals for Board's consideration

During July, state points of contact (POCs) evaluated and provided input to ITRC's Board of Directors on the 28 proposals submitted to the ITRC Five-Year Program Plan for funding consideration. Twenty-nine ITRC states participated in the proposal prioritization process and took advantage of the opportunity to raise their states' priorities and needs within ITRC.

Efforts of the states in this process have significantly improved the quality of the ITRC decision-making process. State inputs, both collectively and by individual states, are an important part of the information being used during this process, and the results will continue to be a resource for teams and ITRC management as ITRC moves forward. Thanks to all the POCs who submitted input during this process from Ala., Ark., Ariz., Calif., Colo., Fla., Ill., Kan., La., Maine, Mass., Mo., Neb., N.H., N.J., N.M., N.Y., N.C., N.D., Ohio, Okla., Penn., S.C., Tenn., Texas, Vt., Va., Wash., and W.V.

❖ Coordinating state review and concurrence on new technical/regulatory guidance documents

During the last third of the year, POCs are working to provide state review, comment, and concurrence on ITRC technical and regulatory documents in the final stages of development. The following documents are the focus for the remainder of 2002:

- ▼ *A Systematic Approach to In Situ Bioremediation in Groundwater; including Decision Trees for In Situ Bioremediation of Nitrates, Carbon Tetrachloride, and Perchlorate*
- ▼ *Characterization and Remediation of Soils at Small Arms Firing Ranges*
- ▼ *Technical and Regulatory Guidance Document for Constructed Treatment Wetlands*

❖ POCs to meet at ITRC Fall Meeting

POCs will meet at the ITRC Fall Meeting (Nov. 5–8, 2002) in Washington, D.C. to continue this year's theme of "Strengthening State Commitment" and to meet with federal partners to identify activities of mutual interest.

❖ Welcome to new POCs

The State Engagement Program welcomes its newest state POCs—Mavis Kent (Ore.) and Sara Arav-Piper (Nev.).

If you would like more information on ITRC State Engagement activities, please see the ITRC Web site at www.itrcweb.org, or contact Paul Hadley, ITRC State Engagement coordinator, phadley@dtsc.ca.gov, (916) 324-3823 or ITRC program advisors, Mary Yelken, myelken@westgov.org, (402) 325-9615 or Pete Chen, chen@sseb.org, (770) 242-7712. Pete Chen is the newest member to the ITRC State Engagement Support Team. Your ITRC state point of contact is also an ITRC resource (contact information available at www.itrcweb.org.)

TECHNICAL TEAM UPDATES

❖ Alternative Landfill Technologies (ALT)

The Alternative Landfill Technologies Team has been collecting, editing, and processing case studies from around the United States—from academia, USEPA, states, and other researchers. Having determined from the case studies and monthly conference calls among team members that adequate merit exists for a variety of alternative cover applications, the ALT Team is compiling the case studies into a technology overview document for printing and dissemination this fall.

Since June, the ALT team has been planning a meeting in Helena, Mont. The team has developed an agenda, which includes site visits to nearby demonstrations with presentations by site personnel. Demonstrations such as these, the case studies, and the subsequent technology overview form the basis for developing a technical and regulatory guidance for applying alternative landfill technologies. Monthly conference calls have helped move the team toward a final outline of the technical/regulatory guidance, which will include decision trees and a clear definition of some of the more controversial issues surrounding the technology.

The ALT Team expects to complete its technical/regulatory guidance in mid-2003. Charles Johnson (Colo.) leads the ALT Team. Reach Charles at (303) 692-3348, charles.johnson@state.co.us.

❖ Brownfields

In working with the U.S./German Bilateral Working Group on brownfield issues, the Brownfields Team forwarded to the bilateral working group a list of 11 U.S. model project brownfield sites for the group to consider for development into case studies, which will form part of the bilateral working group's Site-specific Management Approach and Redevelopment Tools (SMART) Plan.

The Brownfields Team has organized itself into subteams to research three issues impacting brownfields redevelopment: indoor air impacts, dynamic work plans, and long-

term monitoring and engineering controls. The information gathered by the three groups will support the Brownfields Team in developing future guidance documents and trainings. Terri Smith (N.J.) leads the Brownfields Team and can be reached at (609) 984-3122, terri.smith@dep.state.nj.us.

❖ **Constructed Wetlands**

The Constructed Wetlands Team met in Oxnard, Calif. on June 12–14 to revise the first draft of its guidance document, tentatively titled *Technical and Regulatory Guidance for Constructed Treatment Wetlands*. While in Oxnard, the team also worked to develop a decision tree, revise and complete the final draft of a case study survey, and formulate an outline for the associated Internet-based training. Joel Balmat from Universal Studios delivered a presentation on a constructed wetlands project at Universal's proposed theme park site in Florida, and the team visited two wetlands demonstration projects at Port Hueneme.

The case study survey was sent to more than 3,000 people from the ITRC mailing list on July 1. By July 31, the team had received 26 case studies from the United States and Canada. The team reviewed the case studies and will use them to identify regulatory or technical issues associated with the use of constructed wetlands for remediation.

The final document is scheduled for completion in December 2002, and the Internet-based training will be scheduled for early 2003. The Constructed Wetlands Team is led by Bob Mueller (N.J.), who can be reached at (609) 984-3910, bob.mueller@dep.state.nj.us and Dib Goswami (Wash.), who can be reached at (509) 736-3015, dgos461@ecy.wa.gov.

❖ **Contaminated Sediments**

The Contaminated Sediments Team was formed in 2002 to address management of large volumes of dredged materials and contaminated sediments in lakes, streams, estuaries, navigational channels, and harbors using innovative technologies. The team will develop an overview document encompassing sediment characterization, remediation technologies, and risk assessment. This overview document will entail the gathering of relevant case studies, and the team plans to develop a format for gathering data. The team has discovered that there are numerous other sediment groups working on documents and realizes the need to interact with these other groups. The team met on September 16–17 to begin work on the overview document. Rich DeWan of New Jersey is leader of the Contaminated Sediments Team and can be reached at (609) 777-1914, richard.dewan@dep.state.nj.us.

❖ **Dense Nonaqueous Phase Liquids (DNAPLs)**

The DNAPLs Team continues to make progress on its surfactant flushing and characterization technical/regulatory documents:

- ▼ *Guidelines for Characterizing DNAPL Contamination*
- ▼ *Surfactant/Cosolvent Flushing Guidance Document*

The surfactant flushing document has reached a final draft stage and is currently under final review by the entire team. The document is undergoing a simultaneous third-party review by Dr. Suresh Rao of Purdue University. The characterization document was recently reviewed by USEPA although it has not yet reached a final draft stage. The thermal subteam, which is planning a September meeting at a steam demonstration in Maine, has decided to focus on a case study/overview document instead of a technical/regulatory document as originally planned. The thermal group is also continuing its collaboration with the U.S. Army Corps of Engineers and USEPA's Technology Innovation Office on development of an engineering manual for in situ thermal remediation. DNAPLs Team members will draft sections of the document pertaining to regulatory issues and contribute case summaries. Eric Hausamann (N.Y.) leads the DNAPLs Team and can be reached at (518) 402-9759, eghausam@gw.dec.state.ny.us.

❖ **Diffusion Samplers (DS)**

The Diffusion Samplers Team has had a busy summer producing a position paper on the use of passive diffusion bags (PDBs) for long-term monitoring. Following substantial preliminary work, 24 people met in Annapolis, Md. on August 27 and 28 (with an additional three meeting via telecom) to reach accord. A final draft of this document was a direct result of the interchange at the Annapolis meeting, and a finished document is expected to be available in October. This is a major milestone for the team.

The Annapolis meeting also featured excellent presentations by a number of team members. The Air Force Center for Environmental Excellence (AFCEE) was represented by Raphael Vasquez, who updated the team on planned field demonstrations in 2002, and by Javier Santillan, who summarized the assessment of passive samplers at sites around the globe, including Germany, Guam, and Alaska. John Miller and Walter Berger led a discussion of PDB deployment problems associated with dedicated pumps. PDB vendors, represented by Brad Varhol and Walt Scheible, provided the group with an update on commercial developments.

James Taylor, by telecom, summarized recent work at several sites in California, and Mike Crain (Army COE) recapped PDB studies at sites in Texas, New York, and Utah. Mario Ierardi expressed the support of the Air Force Base Conversion Agency (AFBCA) for the PDB technology and outlined the road to acceptance and implementation, while several regulators discussed the current status of diffusion sampling in their states. Additional presentations focused on specific studies: Sandra Gaurin discussed the use of PDBs at Cape Canaveral, Fla.; Hugh Rieck offered details of the first PDB deployment at Tysons Wash, Ariz.; and Tom Imbrigiotta presented results of a U.S. Geological Survey (USGS) study using regenerated cellulose membrane samplers in bedrock wells. Don Vroblesky ended the gathering with an update on developments with several types of diffusion samplers.

The Diffusion Samplers Team recently prepared a CD of "Diffusion Sampler Articles." The searchable CD reproduces publications and presentations available on the Diffusion Sampler Information Center Web site (<http://ds.itrcweb.org>). The disk will be updated in time for the ITRC Fall 2002 meeting.

We have recently welcomed several new members to the Diffusion Samplers Team: Ted Ehlke (USGS), Burt Harrison (AFCEE), Tom Imbrigiotta (USGS), and John Tunks (Parsons). Team membership now totals 33. George Nicholas (N.J.) is the leader of the DS Team and can be reached at (609) 984-6565, george.nicholas@dep.state.nj.us.

❖ In Situ Bioremediation (ISB)

The In Situ Bioremediation Team has completed *A Systematic Approach to In Situ Bioremediation in Groundwater, including Decision Trees for In Situ Bioremediation of Nitrates, Carbon Tetrachloride, and Perchlorate* (ISB-8). The document has been posted on the guidance documents page of the ITRC Web site and is being reviewed for ITRC concurrence by state POCs.

During June, July, and August, the team prepared and tested an Internet-based training describing the pathways and decision criteria that one considers when evaluating in situ bioremediation of nitrate, carbon tetrachloride, or perchlorate contamination in groundwater. The dry run with POCs was held on August 28. Internet-based training is scheduled for October 17, November 14, and December 17 during 2002.

Bart Faris, ISB Team leader from the New Mexico Environment Department, is seeking sites contaminated with these chemicals where ISB can be applied. His recommendation to these sites will be that they use ISB-8

and report any cost savings or streamlining that result from using the document during the technology selection and deployment process. Questions should be directed to ISB Team leader Bart Faris (N.M.), (505) 841-9466, bart_faris@nmenv.state.nm.us.

❖ MTBE-Contaminated Groundwater

The MTBE Team has been approached by the American Petroleum Institute and USEPA regarding funding needs for 2003 and beyond. These funds would enable the team to develop the full range of products and services proposed to the ITRC Board of Directors. Presently, the MTBE Team is funded only at minimal, exploratory levels.

The team met September 9–10 at Port Hueneme in Calif. to review work in progress on two projects: a technology overview of available and emerging technologies suitable for remediating groundwater contaminated with MTBE (methyl tertiary-butyl ether) or TBA (tertiary-butyl alcohol), and an MTBE case study database. Fred McGarry (N.H.) leads the MTBE Team. Fred can be reached at (603) 271-4978, fmcgarry@des.state.nh.us.

❖ Permeable Reactive Barriers (PRBs)

PRBs Team leader Matt Turner of the New Jersey Department of Environmental Protection worked with DOE, USEPA, and DoD updating guidance on long-term performance and monitoring of PRBs. The agencies conducted field performance evaluations of several PRBs installed at sites under their purview. The general goal was to evaluate the longevity and hydraulic performance of several PRBs in various geologic settings. The resulting report contains project summaries, including conclusions and recommendations.

Because zero-valent iron barriers were the first and most common PRBs installed, the triagency study focused primarily on iron barriers. Especially for the longevity evaluation, it was important to focus on sites with a history of at least a few years of operation. All the PRBs evaluated in this study were of the trench (excavate-and-fill) type. The more innovative PRB installations, where the reactive medium is injected into the ground using special methods such as jetting or hydraulic fracturing, were not evaluated. However, the general conclusions of this study are expected to be applicable to several different types of PRBs, a technology that typically relies on passive groundwater capture and treatment.

Lessons learned from this study in terms of the monitoring tools available and their effectiveness provide important pointers for future sites. The draft report is available on the PRB Team page of the ITRC Web site and is currently

being reviewed by the PRB Team. Team leader Matt Turner can be reached at (609) 984-1742, matthew.turner@dep.state.nj.us.

❖ **Radionuclides (RADs)**

Earlier this year, the RADs Team finalized and published its most recent product, *Determining Cleanup Goals at Radioactively Contaminated Sites: Case Studies*. The team met in June at the DOE Oak Ridge site. Numerous facilities and projects were visited. The team began work on its long-term stewardship (LTS) survey. The survey will go out in late summer and be aimed at looking at state regulator views on technology's role in long-term stewardship. Additionally, the team is working on finalizing training on risk assessment and development of preliminary remediation goals (PRGs) for radionuclides. This project is being conducted in coordination with USEPA.

In June, the RADs Team made a presentation to the Federal Remediation Technology Roundtable on the team's efforts. Plans for the Fall Meeting include a presentation on the LTS survey data and possibly an LTS workshop and dry run of the radionuclide risk assessment training. RADs Team leaders are Tom Schneider (Ohio), who can be reached at (937) 285-6466, tom.schneider@epa.state.oh.us, and Carl Spreng (Colo.), who can be reached at (303) 692-3358, carl.spreng@state.co.us.

❖ **Remedial Process Optimization (RPO)**

The Remedial Process Optimization Team recently participated in remedial process optimization reviews at four former California Air Force bases: Norton, March, Mather, and McClellan. Following the McClellan RPO review, the team met at the California EPA offices and discussed plans for 2003 reviews as well as completed the outline of the RPO guidance document that will be produced next year. The guidance document will include a lessons learned section specifically focused on the needs of regulators who are beginning optimization programs. It will include information from various state and federal agencies as well as various types of sites. The team hopes to expand its RPO reviews to state-led sites, as well as to non-DoD federal sites in the next year. Final plans for 2003 will be completed at the next team meeting in Washington, D.C. on November 7.

For those not familiar with what "remedial process optimization" means, it is a technical and programmatic assessment of a remediation or long-term monitoring system by a multidisciplinary team of experts. Many of the systems reviewed are specific to groundwater monitoring, but all systems related to site cleanup are assessed for enhancements or substitutions with state-of-the-art tech-

nologies. The emphasis while conducting an RPO is to ensure that a system is operating efficiently toward the goal of site cleanup.

As the team moves forward with its plans for 2003, new team members are needed to complement the existing team's expertise. Interested individuals should contact team leader Tom O'Neill at (609) 292-2150, toneill@dep.state.nj.us for more information.

❖ **Sampling, Characterization, and Monitoring (SCM)**

The Sampling, Characterization, and Monitoring Team continues to work closely with USEPA's Technology Innovation Office (TIO) on acceptance of the Triad Approach, an innovative approach to characterization that incorporates systematic planning, dynamic work plans, and on-site analytical tools. The team met in June at Port Hueneme, Calif., where Deana Crumbling of TIO brought the team up to date on the Triad concept. The team plans to develop technical/regulatory documents on the Triad approach and on the use of direct-push wells for environmental monitoring. Kimberlee Foster and Brian Allen, both from Missouri, are the leads for the Triad and direct-push subteams, respectively. Team leader Stu Nagourney has been active in outreach and has established contact with the European Union Environmental Commission. He also took the initiative to correspond with James Owendoff of DOE to offer the team's assistance with sampling issues at the Hanford Site. Stu (N.J.) can be reached at (609) 292-4945, stuart.nagourney@dep.state.nj.us.

❖ **Small Arms Firing Range (SMART)**

The ITRC Small Arms Firing Range, or SMART, Team met in Denver on June 5 and 6, where team members finalized the decision tree and scheduled completion of sections of the text. The outline for the Internet-based training was reviewed and adjusted in accordance with the near-final version of the document. The final team review of the document occurred in late July and early August, revisions were made, and the ITRC POCs pre-concurrence review began on August 20. Team members distributed the document for peer review during this same period. Preconcurrence review and peer review comments are due September 20.

Practice sessions of the Internet-based training were held on August 29 and September 12. The dry run of the training with POCs is scheduled for October 2, with full training sessions scheduled for October 31 and November 19.

Major issues identified by the team are included in the executive summary and in Section 6.0 of the document. Here's a taste of what to expect:

"It is the ITRC Small Arms Team's position that active and inactive ranges that reclaim and recycle lead bullets or lead shot may place the soil that is generated during the reclamation process back on the range without testing the soil for hazardous waste characteristics. This position is consistent with USEPA's opinion and the Military Munitions Rule.

"In addition, while many current analytical methods rely on using only soil that has been passed uncrushed through a 30-mesh sieve as the source for analytical tests, some controversy exists in the field as to the best method(s). Other sample preparation protocols have been proposed and approved by governing regulatory bodies. Differences in sample preparation protocols include the designation of the size of sieve to use or whether to use a sieve at all and on the degree of disaggregation prior to sieving.

Therefore, the recommendation of a specific sample preparation method may be misleading. While it has been the team's intent to recommend standard methodologies for sample collection and preparation, no clear consensus is apparent. As a result, the choice of a method should provide a sample that is representative of the site and its environment and be agreeable to the regulatory community and other parties involved in the evaluation."

The SMART Team is led by Dib Goswami (Wash.) and Bob Mueller (N.J.). Dib can be reached at (509) 736-3015, dgos461@ecy.wa.gov; Bob can be reached at (609) 984-3910, bob.mueller@dep.state.nj.us.

❖ Unexploded Ordnance (UXO)

The UXO Team is building a national consensus regarding the regulation of UXO-contaminated sites by offering UXO Basic Training Courses in 2002. The courses are designed to educate and inform state, federal, and community stakeholders of the current methods and procedures being used to investigate and remediate UXO-con-

CALENDAR

Event	Location	Date	Contact
* Passive Diffusion Bag Samplers		Sept. 24 (2:00 to 4:00 ET)	
2002 ECOS Annual Meeting	San Antonio, Tex.	Oct. 6-8	Lia Parisien, lparisie@sso.org
Accelerated In Situ Bioremediation	Charlottesville, Va.	Oct. 8-9	Paul Hadley, (916) 324-3823, phadley@dtsc.ca.gov
* Natural Attenuation		Oct. 15 (2:00 to 4:00 ET)	
* A Systematic Approach to ISB		Oct. 17 (11:00 to 1:15 ET)	
* Phytotechnologies		Oct. 29 (2:00 to 4:00 ET)	
* Small Arms Firing Range		Oct. 31 (11:00 to 1:00 ET)	
ITRC Fall Meeting	Washington, D.C.	November 5-8	Elaine Specht, (540) 557-6071 elaine_specht@wpi.org
** Accelerated In Situ Bioremediation	Oakland, Calif.	Nov. 14-15	Paul Hadley, (916) 324-3823, phadley@dtsc.ca.gov
* A Systematic Approach to ISB		Nov. 14 (11:00 to 1:15 ET)	
* Small Arms Firing Range		Nov. 19 (2:00 to 4:00 ET)	
Phytotechnologies	Milwaukee, Wis.	Nov. 19-21	Pete Chen, (770) 242-7712, chen@sseb.org
UXO Basic Training	Monterey, Calif.	Dec. 10-11	Stacey Kingsbury, (540) 557-6065, stacey_kingsburg@wpi.org
* A Systematic Approach to ISB		Dec. 17 (2:00 to 4:15)	

* Internet-based courses; contact Mary Yelken, (402) 325-9615, myelken@westgov.org.

** Held in conjunction with DOE's TIE Conference

All dates are subject to change. For more up-to-date information, see the Web site (www.itrcweb.org) under the Calendar link or Training buttons.

taminated sites and offer up-to-date information on ordnance identification, regulations, technology, and site characterization and remediation. As of the end of July, the team had successfully presented two-day courses in Charleston, Boston, and Seattle. These courses have trained 274 representatives from DoD (the Air Force, Navy, and Army), states, other federal agencies, industry, and communities. The last course for 2000 will be presented in Monterey, Calif. on December 10–11. To register for this class, go to the ITRC Web site and select “Classroom Training.” General information is available by calling Stacey Kingsbury, (540) 557-6065.

The UXO Team attended the 2002 UXO/Countermining Forum in Orlando in early September, where it presented a mini basic training course. During the forum, the team got together to share a working draft of its ordnance and explosives (OE) historical records research document, a collaborative effort among federal partners, state regulators, and industry and community representa-

tives. When final, the document will provide a useful framework for those involved in initial phases of UXO site investigation, including collecting, organizing, and assessing available, site-specific UXO data. The OE historical records document is scheduled for a December 2002 or January 2003 release.

The UXO Team has also roughed out an outline and a schedule of deliverables for its second document on site-specific geophysical proveouts, which will include up-to-date information on geophysical detection systems, regulations, and technical requirements. The team is planning to release this document in summer 2003. Kevin Oates of USEPA is leading the effort to develop the geophysical proveout document. The UXO Team is led by Jeff Swanson (Colo.) and Jennifer Roberts (Alaska). Jeff can be reached at (303) 692-3416, jef-frey.swanson@state.co.us. Jennifer is at (907) 269-7553, jennifer_roberts@envircon.state.ak.us.

CONTACTS

For questions or comments regarding ITRC, please contact Rick Tomlinson, ITRC program director, Environmental Council of the States, (202) 624-3660, rickt@sso.org.

To provide comments, suggestions, or input for ITRC’s *Quarterly Update*, please contact Elaine Specht, WPI, (540) 557-6071, elaine_specht@wpi.org.

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