



Rapid, in-situ remediation & closure of groundwater sites impacted with fuels, oils, solvents, creosote, coal ash, or tars

www.ecovacservices.com

GREEN SHEET

Environment/Brown Fields/ Sustainment/Energy

**Conferences, Newsletters, Reports, Training,
Contracts & Professional Organizations**

November - December 2017

New Entries & Updates Highlighted in Yellow

2017 Conferences

- Oct 16-18, 2017, **MGP 2017, 7th International Symposium & Exhibition on the Redevelopment of Manufactured Gas Plant Sites**, New Orleans, LA, <http://mgpsymposium.com/>
- Oct 16-19, 2017, **AEHS, Association for Environmental Health & Sciences Foundation, 33rd Annual International Conference on Soils, Sediments, Water, and Energy**, Amherst, MA, <http://www.aehsfoundation.org/east-coast-conference.aspx>
- Oct 19, 2017, **National Grid, 2017 Energy Efficiency Summit**. Foxborough, MA, <http://www.event.com/events/2017-customer-and-partner-energy-efficiency-summit/event-summary-ef97d123592f4b91a4e4556bcc6f6ba1.aspx>
- Oct 22-25, 2017, **GSA, Geological Society of America, 2017 GSA Annual Meeting**, Seattle, WA, http://geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2017.aspx
- Oct 22-25, 2017, **NOWRA, National Onsite Wastewater Recycling Association, 2017 Onsite Wastewater Mega-Conference**, Dover, DE <http://www.nowra.org/content.asp?pl=28&contentid=341>

- Oct 23-25, 2017, **GAWP**, Georgia Association of Water Professionals, **AL-GA Water Resources & Economics Conference**, Phenix City, AL, <http://www.gawp.org/events/EventDetails.aspx?id=1003138&group=>
- Oct 23-25, 2017, **GRWA**, Georgia Rural Water Association, **GRWA Fall Conference**, Helen, GA, <http://www.grwa.org/events.cfm?id=2351>
- Oct 24-25, 2017, **RailTec 2017**, 19th **Railroad Environmental Conference**, Urbana-Champaign, IL, <http://railtec.illinois.edu/RREC/overview.php>
- Oct 26-28, 2017, **ADEM**, Alabama Department of Environmental Management, **20th Annual Surface Water Meeting**, Montgomery, AL, <http://www.adem.state.al.us/misc/2017swconf.cnt>
- Oct 25-26, 2017, **6th Annual Produced Water Quality Recycling & Reuse 2017 Rocky Mountain Initiative**, Denver, CO, <http://www.produced-water-quality-recycling-reuse-rockies.com/>
- Oct 26-27, 2017, **ASTSWMO**, Association of State and Territorial Solid Waste Management Officials, **Annual Meeting**, Arlington, VA, <http://astswmo.org/main/meetings.html>
- Oct 28-30, 2017, **ICSEA 2017**, **5th International Conference on Sustainable Environment and Agriculture**, Los Angeles, CA, <http://www.icsea.org/>
- Oct 30-Nov 1, 2017, **SEEC**, **South Eastern Environmental Conference**, Orange Beach, AL, <http://alabamasafestate.ua.edu/environmental-conference/>
- Oct 30-Nov 2, 2017, **AWWA**, American Water Works Association, **Water Infrastructure Conference & Exposition**, Houston, TX, <https://www.awwa.org/conferences-education/conferences/water-infrastructure.aspx>
- Oct 31- Nov 2, 2017, **2017 Chem Show**, the event for processing technology including hazardous waste & pollution prevention, New York, NY, <https://chemshow.com/>
- Nov 1-3, 2017, **RE3**, **Remediation, Redevelopment, Results Conference**, applied technologies and methodologies for the treatment of heavy metals and organics, Philadelphia, PA, <http://www.envioblend.com/re3/>
- Nov 1-3, 2017, **AWMA**, Air & Waste Management Association, **Pacific NW Section Annual Conference & Exhibition**, Boise, ID, https://www.awma.org/ev_calendar_day.asp?date=11/1/2017&eventid=27
- Nov 5-9, 2017 **CERF**, Coastal & Estuarine Research Foundation, , **CERF 2017 24th Biennial Conference**, Providence, RI, <http://www.erf.org/registration-2017-conference>
- Nov 5-9, 2017, **AWRA**, American Water Resources Assn, **Annual Conference**, Portland, OR, <http://www.awra.org/meetings/Portland2017/>
- Nov 6-9, 2017, **NALMS**, North American Lake Management Society, **NALMS 2017 -Finding Balance**, Westminster, CO, <https://www.nalms.org/nalms2017/>
- Nov 7-9, 2017, **AWMA**, Air & Waste Management Association, **Air Quality Measurements Conference**, Methods & Technology, Long Beach, CA, <http://www.awma.org/measurements>
- Nov 7-9, 2017, **GBA/EPA-4**, Georgia Brownfields Association/EPA-4, **Southeast Brownfields Workshop**, Atlanta, GA, <http://georgiabrownfield.org/gba-events/southeast-brownfields-workshop/>
- **Nov 8-9, 2017**, **Wildlife Habitat Council**, **Conservation Conference**, Baltimore, MD, <http://www.erf.org/registration-2017-conference>
- Nov 9-10, 2017, **Greenbuild International Conference & Expo**, Boston, MA, <https://greenbuildexpo.com/>
- **Nov 12-16, 2017**, **ESWP**, Engineers' Society of Western Pennsylvania, **The International Water Conference**, Orlando, FL <https://eswp.com/water/overview/>
- Nov 12-16, 2017, **AWWA**, American Water Works Association, **Water Quality Technology Conference® & Exposition**, Portland, Oregon, <https://www.awwa.org/conferences-education/conferences/water-quality-technology.aspx>
- Nov 13-15, 2017, **Texas Energy Summit – CATEE 2017**, **Clean Air Through Energy Efficiency Conference**, Plano, TX, <https://catee.tamu.edu/>
- Nov 14-15, 2017, **GAWP**, Georgia Association of Water Professionals, **2017 Fall Conference, Laboratory Symposium & Expo**, Athens, GA, <http://www.gawp.org/events/EventDetails.aspx?id=898205&group=>
- Nov 14-16, 2017, **AWMA**, Air & Waste Management Association, **Guideline on Air Quality Models: The Changes**, Chapel Hill, NC, <http://www.awma.org/conferences/conferences-detail-view/guideline-on-air-quality-models--the-changes>
- **Nov 15-17, 2017**, **SAME**, Society of American Military Engineers, **Small Business Conference**, Pittsburgh, PA, http://sameatlantapost.org/event/small-business-conference-2017/?instance_id=334
- **Nov 27-28, 2017**, **Green Growth Knowledge Platform**, **5th Annual Conference**, Washington, DC, <http://www.greengrowthknowledge.org/event/conference2017>
- Nov 28-30, 2017, **SERDP & ESTP**, **2017 Symposium**-focusing on the Department of Defense's environmental and installation energy issues, Washington, DC, <http://www.symposium.serdp-estep.org/events/serdp-estep-symposium-2017/event-summary-24d16c91fc034dc4833b021a8773b665.aspx>
- Dec 3-5, 2017, **AWWA**, American Water Works Association, **North American Water Loss Conference**, San Diego, Ca, <http://www.northamericanwaterloss.org/>
- Dec 4-7, 2017, **NGWA**, National Groundwater Association, **Groundwater Summit & Groundwater Week**, Nashville, TN, <http://groundwatersummit.com/>

- Dec 5-7, 2017, **National Brownfields Training Conference, Brownfields 2017**, Sustainable Communities, Pittsburg, PA, <https://www.brownfields2017.org/>
- Dec 5-7, 2017, **Power-Gen International, Power- Gen Conference 2017**, Las Vegas, NV, <http://www.power-gen.com/event-information/about.html>
- Dec 5-7, 2017, **Clean Gulf, Annual Conference**, Spill Prevention, Preparedness and Response, Houston, TX, http://www.cleangulf.org/?hq_e=el&hq_m=3373900&hq_l=1&hq_v=4f1574a775
- Dec 7-8, 2017, **FRC, 22nd Florida Remediation Conference**, Orlando, FL, <http://www.enviro-net.com/>
- **Dec 8-13, 2017**, Gulf of Mexico Alliance, **9th Annual Summit on Coastal and Estuarine Restoration and Management**. Long Beach, CA, <http://www.gulfofmexicoalliance.org/events/9th-national-summit-on-coastal-estuarine-restoration-management/>
- Dec 11-15, 2017, **AGU**, American Geophysical Union, **Sustainability Efforts in NOLA**, New Orleans, LA, <http://fallmeeting.agu.org/2017/green/>

2018 Conferences

- **Jan 4-8, 2018**, **IAFOR**, International Academic Forum, **International Conference on Sustainability, Energy & the Environment**, Honolulu, HI, <https://iicseehawaii.iafor.org/>
- **Jan 21-24, 2018**, **NEWEA**, New England Water Environment Association, **Annual Conference & Exhibit**, Boston, MA, <http://annualconference.newea.org/>
- Jan 22-23, 2018, **AWWA**, American Water Works Association, **International Symposium on Potable Reuse**, Austin, TX, <https://www.awwa.org/conferences-education/conferences/potable-reuse.aspx>
- **Jan 22-25, 2018**, **AWWA**, American Water Works Association, **Indiana Section 110th Annual Conference**, Indianapolis IN, <https://www.inawwa.org/events/category/annual-conference/>
- **Jan 23-25, 2018**, **NCSE**, National Council for Science and the Environment, **The Science, Business & Education of Sustainable Infrastructure**, Washington, DC, <https://ncseconference.org/>
- Jan 24-25, 2018, **Green Biz, 9th Miami Green Expo & Conference** -Where Sustainability becomes your Profit Power Source, Miami, FL <https://www.greenbiz.com/event/2018/01/24/miagreen-expo-conference-2018-9th-edition>
- Jan 25-26, 2018, **PGWA**, Pennsylvania Ground Water Association, **Annual Winter Conference**, Grantville, PA, <http://www.pgwa.org/>
- Feb 6-8, 2018, **Green Biz, 10th Green Biz 18**, trends, challenges and solutions in sustainable business today. Phoenix, AZ, <https://www.greenbiz.com/event/2018/02/06/greenbiz-18>
- Feb 8-9, 2018, **GTEC**, Georgia Tank & Environmental Contractors Association, **SESVIS, Southeastern States Vapor Intrusion Symposium**, <http://www.gteca.com/event/gtecs-southeastern-states-vapor-intrusion-symposium-sesvis/>
- Feb 26-27, 2018, **NGWA**, National Ground Water Association, **Groundwater Issues and Science Affecting Policy and Management in the Southwest**, Albuquerque, NM <http://www.ngwa.org/Events-Education/conferences/Pages/5034feb18.aspx>
- Mar 6-8, 2018, **AWMA**, Air & Waste Management Association, **IT3/HWC, 36th International Conference on Thermal Treatment Technologies & Hazardous Waste Combustors**, Houston, TX, <https://www.awma.org/it3>
- **Mar 16-18, 2018**, **PNWGWA**, Pacific North West Ground Water Association, **PNEGWA Groundwater Exposition**, Portland , OR, <http://www.pgwa.org/>
- Mar 17-21, 2018, **EIA**, Environmental Information Association, **2018 National Conference & Exhibition**, San Diego, CA, <http://eia-usa.org/meetinginfo.php?id=20&ts=1490725791>
- Mar 19-22, 2018, **Carbon Capture, Utilization & Storage Conference**, Nashville, TN, <https://www.govevents.com/details/24329/carbon-capture-utilization-and-storage-conference/?nl=d2c43699ae29004d65b219f7592edc3d>
- Mar 20-22, 2018, **ECOS**, Environmental Council of the States, **2018 ECOS Spring Meeting**, St Paul, MN, <http://www.ecos.org/event/2018-ecos-spring-meeting/>
- Mar 21-22, 2018, **AEE**, Association of Energy Engineers, **GLOBALCON**, Energy, Power & Facility Management Strategies & Technologies Expo, Boston, MA, www.globalconevent.com
- Mar 25-28, 2018, **AWWA**. American Water Works Association, **Sustainable Water Management Conference**, Seattle , WA, <https://www.awwa.org/conferences-education/conferences/sustainable-water-management.aspx>
- **Mar 28-29, 2018**, **30TH Annual Environmental & Ground Water Quality Conference**, Pierre, SD, <http://sdaep.org/2016/12/13/29th-annual-environmental-and-ground-water-quality-conference/>
- **Apr 4-5, 2018**, **Clean Waterways**, Spill Prevention And Response In Inland Waterways Conference, St Louis, MO, http://2018.cleanwaterwaysevent.org/?mkt_tok=eyJpIjoiTm1JM1lqQTJOR05sWVRabSIsInQiOiJZRUXtcm3NFdnMFRiSVNBZEVYZFR2V2x6bUxrYkRvQStYm9HMWxOOWhuWnFpandVYzZNTHFpRk5VR3JJVHFCXC8yK1E4V1hFbTZcL1hSXC9pRGd2ZjMwTVVwZ1RvR1RZbVAXMTIGT0k1bTlvXC9mZGhhZGh3Ym9hR3FhL0d5bFNrZ3JSIn0%3D
- **May 10-12, 2018**, **FGWA**, Florida Ground Water Association, **2018 Convention & Trade Show**, Orlando, FL, <https://www.fgwa.org/annual-convention-trade-show/>

- May 22-25, 2018, **SAME**, Society of American Military Engineers, **JETC 2018, Joint Engineer Training Conference & Expo**, Kansas, MO, <http://www.same.org/Chesapeake/ModuleID/4253/ItemID/1707/mctl/EventDetails>
- **Jun 11-14, 2018**, **AWWA**, American Water Works Association, **ACE 18, Annual Conference & Exposition**, Los Vegas, NV, <https://www.awwa.org/conferences-education/conferences/annual-conference.aspx>
- Jun 19-21, 2018, **Clean Pacific, Spill Prevention & Response Conference** for Marine, Inland Waterways, Rail and Pipeline, Portland, OR, <http://www.cleanpacific.org/>
- **Jun 25-28, 2018**, **AWMA**, Air & Waste Management Association, **111th Annual Conference & Exhibition**, Hartford, CO, <https://www.awma.org/ace2018>
- Jun 20-21, 2018, **AEE**, Association of Energy Engineers, **EMC, Energy Management Congress**, Seattle, WA, <http://www.energyevent.com/>
- **Jun 25-28, 2018**, **AWMA**, Air & Waste Management Association, **111th Annual Conference & Exhibition**, balancing energy, environment and health, Hartford, CT, <https://www.awma.org/ACE2018>
- Aug 26-30, 2018, **NCER, National Conference on Ecosystem Restoration**, New Orleans, LA, <http://conference.ifas.ufl.edu/ncer2018/>
- **Sep 26-29, 2018**, **AWT**, Association of Water Technologies, **Annual Convention and Exposition**, Orlando, FL <https://www.awt.org/annualconvention18/>
- Sep 11-13, 2018, **NEIWPCC**, New England Interstate Water Pollution Control Commission, **26th National Tanks Conference & Expo**, Louisville, KY, <http://www.neiwpcc.org/tanksconference/>
- **Sep 29-Oct 3, 2018**, **WEF**, Water Environment Federation, **WEFTEC 2018 Annual Technical Exhibition and Conference**, New Orleans, LA, <http://www.waterworld.com/events/2018/09/weftec.html>
- Dec 3-7, 2018, **ACES: A Community on Ecosystem Services**, **ACES 2018 Conference**, Washington, DC, <http://www.conference.ifas.ufl.edu/aces/>

Other Conferences and Events

- International Environmental conferences, <http://www.wikicfp.com/cfp/call?conference=environment> and <http://www.conferenceseries.com/environmental-sciences-meetings> and <https://www.epa.gov/international-cooperation/world-calendar-events-sustainable-materials-management-site-remediation#may2017>
- Other US Federal conferences & events. <https://www.fedcenter.gov/calendar/conferences/> and <https://www.govevents.com/weekly-newsletter-v2/vendor/242>
- Energy conferences, <http://www.eventsinamerica.com/trade-shows/business/energy/date/100000/>
- Brownfields/Environmental Conferences. <https://brownfieldlistings.com/blog/post/brownfield-conferences-2017>
- NGWA, National Ground Water Association events and training, <http://www.ngwa.org/events-education/pages/calendar.aspx>

Environmental/Energy Training

- Multiple dates, 2017, **Enviro Remediation Workshops**, Multiple locations, <https://enviroworkshops.com/training/us-remediation-workshops/>
- **Nov 15-16, 2017**, **EPA/Trainex, Groundwater High-Resolution Site Characterization (HRSC)**, Addison, TX, <https://trainex.org/offeringlist.cfm?courseid=1389&all=yes>
- **Nov 28-Dec 1, 2017**, **EPA Training Alliance Group, Environmental Awareness Bootcamp**, New Orleans, LA, <http://www.epaalliance.com/environmentalbootcamp-nov17.html>
- Nov 15-16, 2017, **EPA Trainex, Groundwater High-Resolution Site Characterization (HRSC)**, Dallas, TX, <https://trainex.org/offeringlist.cfm?courseid=1389&all=yes>
- **AEE**, Association of Energy Engineers, **On demand, on-line energy management training webinars**, http://www.aeeprograms.com/store/category.cfm?category_id=4
- **EPA Alliance Training Group, 2017-2018 Environmental Training Schedule**, <http://www.epaalliance.com/publictraining.html>
- **EPA's Technology Innovation and Field Services Division, CLU-IN, Contaminated Site Clean-up Information**, free Webinars, <https://clu-in.org/live/>
- **EPA's Sustainable Materials Management Program (SMM) Web Academy** series provides information to materials management stakeholders through webinars. <http://epa.gov/smm/web-academy/>, and <http://www.epa.gov/epawaste/education/train.htm>
- **ESTCP/SERDP**, DoD, DoE, EPA Webinar Series, <https://www.serdp-estcp.org/Tools-and-Training/Webinar-Series>
- **ITRC**, International Technology Regulatory Council, 2017 Environmental training course schedule, <http://www.itrcweb.org/Training>
- **NGWA**, National Groundwater Association. **Conferences, Workshops, Courses, and Webinars**. <http://www.ngwa.org/Events-Education/Pages/Home.aspx>
- **NWETC**, Northwest Environmental Training Center, **New Approaches in Remediation of Contaminated Sediments**, Quarterly 2-day Classes, <https://www.nwetc.org/course-catalog/rem-550-nov-3-4-2016>

- USAEC, US Army Environmental Center, **Defense and Federal Grant Environmental and NEPA Training**, <http://aec.army.mil/Opportunities/Training.asp>
- **Webinars**. See newsletters below for numerous on-line webinars.

Environmental Contracts & Grants

- **Environmental Grants**, various sources. <http://www.grants.gov/web/grants/search-grants.html>
- **EPA Nat'l Center for Environmental Research Grants**, <https://www.epa.gov/research-grants/research-grants-fellowship-and-sbir-listserv>
- **ESTCP/SERDP**, Solicitations & Funding Opportunities, <https://www.serdp-estcp.org/Funding-Opportunities/SERDP-Solicitations>
- **Fed Biz Opps, CLU-IN**, Federal Business Opportunities, Clean Up Information, Environmental Solicitations), <http://www.clu-in.org/fedbizopps>;
- **FedCenter.gov**, Provides sources and procedures for a variety of environmental grants. <https://www.fedcenter.gov/opportunities/grants/#cleanup>

Environmental Reports/Publications/Guidance

- ANSI, American National Standards Institute, has approved the **National Green Building Standard™, ICC/ASHRAE 700-2015**, for all types of sustainable residential construction. <http://ebooks.buildebooks.com/product/iccashrae-7002015-national-green-building-standard>
- **DoD**, Department of Defense, **DoD Vapor Intrusion Handbook**, 2009, 171 pages, <http://denix.osd.mil/irp/vaporintrusion/unassigned/dod-vapor-intrusion-handbook/>
- **EPA** to Reconsider Certain Coal Ash Rule Provisions, <https://www.epa.gov/newsreleases/epa-reconsider-certain-coal-ash-rule-provisions>
- **EPA**, **Final RCRA Hazardous Waste Generator Improvements Rule**, (Federal Register, 97 pages), effective May 30, 2017, <https://www.gpo.gov/fdsys/pkg/FR-2016-11-28/pdf/2016-27429.pdf>
- **EPA**, **Brownfields Revitalization Guide**, EPA 560-K-16-001, <http://www.epa.gov/brownfields/setting-stage-leveraging-resources-brownfields-revitalization>.
- **EPA News Releases**, <http://www.epa.gov/newsroom>
- **EPA**, **OSWER Publication 9200.2-154, OSWER Technical Guide for Assessing & Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air**, June 2015, <http://www.epa.gov/oswer/vaporintrusion/documents/OSWER-Vapor-Intrusion-Technical-Guide-Final.pdf>
- **EPA ChemView**, an updated database of toxic chemicals regulated under TSCA. <http://www.epa.gov/opptintr/existingchemicals/chemview/index.html>
- **ITRC**, International Technology Regulatory Council, **Contaminated Sediments Remediation, Remedy Selection for Contaminated Sediments** (514 pages), http://www.itrcweb.org/contseds_remediation/#Welcome.htm%3FTocPath%3D_____1
- **ITRC**, International Technology Regulatory Council, **DNAPL Site Characterization and Remediation Tools Selection**, http://www.itrcweb.org/DNAPL-ISC_tools-selection/

Environmental/Energy Newsletters

- **AEE**, Association of Energy Engineers, **Energy, Power, Facility Management Newsletter** and others. Subscribe at <http://www.aeecenter.org/i4a/pages/index.cfm?pageid=3416>
- **AEG**, Association of Environmental and Engineering Geologists, **GeoNews Newsletter**. Subscribe at <http://www.aegcarolinas.org/>
- **Army Regional Environmental and Energy Office (REEO)**. Overview at <http://www.asaie.army.mil/Public/ESOH/REEO/>. Newsletter for EPA Regions 1, 2, 3 and 5, contact Leanne Dickens at Leanne.1.dickens2@usace.army.mil; Region 4, David Eady at david.s.eady@usace.army.mil; Regions 6 & 7, Jim Mayer at james.a.mayer2@usace.army.mil; Regions 8, 9 & 10, Nancy Reese at Nancy.L.Reese@usace.army.mil
- **DOE EERE**, Office of Energy Efficiency & Renewable Energy. News releases. <https://www.energy.gov/eere/office-energy-efficiency-renewable-energy>
- **Nicholas Institute for Environmental Policy Solutions**, Duke University, <https://nicholasinstitute.duke.edu/newsletter>
- **ENR**, Engineering News Record, **Water/Wastewater Today**, <http://link.bnp-custom.com/YesConnect/HtmlMessagePreview?AQOglvvi7ZNFEPWWpRzlwkJRcVYr0BjB0zREJNgvTUp8=.enc>
- **EPA News Release, May 22, 2017**, EPA Announces Superfund Task Force, **task force to provide recommendations for streamlining superfund program**, <https://www.epa.gov/newsreleases/epa-announces-superfund-task-force>
- **EPA TechDirect**, published by U.S. EPA's Technology Innovation and Field Services Division, <https://clu-in.org/techdirect/>
- **EPA Technology and Trends**, A newsletter about soil, sediment, & groundwater characterization & remediation technologies, https://clu-in.org/products/newsletters/nandt/view_new.cfm?issue=1115.cfm
- **EPA-TINS**, Technology Innovation News Survey, Remediation solicitations & technology developments, <http://clu-in.org/products/tins/>
- **ETEBA**, Energy Technology and Environmental Business Association, Quarterly Newsletter, <https://eteba.org/>

- **HAZMAT Management**, Environmental Solutions, Site Remediation, Clean Tech News, <http://www.hazmatmag.com/digital-edition>
- **NGWA**, National Groundwater Association, Newsletter and education, <http://www.ngwa.org/Pages/default.aspx>
- **Nature Journal**. Dozens of subject specific newsletters, <http://www.nature.com/index.html>
- **NAVFAC REC**, Naval Facilities Regional Environmental Coordinator- Mid Atlantic, http://www.navfac.navy.mil/navfac_worldwide/atlantic/fecs/mid-atlantic/about_us/environmental_norfolk/rec.html
- **NEIWPCC**, New England Interstate Water Pollution Control Commission, <http://www.neiwpcc.org/>
- **NRDC**, Natural Resources Defense Council, **This Week**, http://www.nrdconline.org/site/MessageViewer?pw_id=4321&dlv_id=59761&em_id=64741.0
- **USGS**, US Geological Survey, **Science for a Changing World**, <http://www.usgs.gov/newsroom/>
- **WEF**, Water Environmental Federation, **WE&T, Water Environment & Technology**, http://www.watereenvironmenttechnology-digital.com/watereenvironmenttechnology/may_2015?sub_id=HV092vdHJ701#pg2

Related Professional Organizations & Metro Atlanta, GA Chapters

- **AEG**, Association of Environmental & Engineering Geologists. Contact Matthew Howe, matthew.r.howe@gmail.com, (678) 637-7060, <http://www.aegweb.org/sections-chapters/southeastern> .
- **AGS**, Atlanta Geological Society. Contact Ben Bentkowski at bbentkow@gmail.com or 770-296-2529, <http://www.atlantageologicalsociety.org/>
- **AHMP**, Alliance of Hazardous Materials Professionals. Contact Gerald R. Mueller, gerald.mueller@amec.com, (770) 421-3436. <http://www.ga-ahmp.org/>
- **AIChE**, American Institute of Chemical Engineers. Contact Krupa Patel, (krupa3@gmail.com), (404) 786 6117, <http://www.atl-aiche.org/Menu.html>
- **AIPG**, American Institute of Professional Geologists. Contact Ron Wallace, ronald.wallace@dnr.state.ga.us, (404) 362-2589, <http://www.aipg.org/sections/GAaipg.htm>
- **ASCE**, American Society of Civil Engineers. Contact Rebecca Shelton, Rebecca.Shelton@gwinnettcountry.com (678) 376-7033, <http://www.ascega.org/>
- **ASCE-EWRG**, Environmental & Water Resources Group of ASCE. Contact Rasheed Ahmad, rahmad@atlantaga.gov, 404-546-3313. <http://www.ascega.org/environmental-water-resources/>
- **ASCE-GEO-INSTITUTE**, Geological Institute Section of ASCE. Contact Sarah Fick, sfick@geosyntec.com, 423.385.2310, <http://www.ascega.org/georgia-geo-institute-chapter-of-asce/>
- **ASSE**, American Society of Safety Engineers. Contact Camille Oaks, at oakes.camille@gmail.com, , <http://georgia.asse.org/>
- **AWMA**, Air & Waste Management Association. Contact Thomas Wideman, (404) 506-7088, TCWidema@southernco.com
- **ETEBA**, Energy Technology and Environmental Business Association, <https://eteba.org/>
- **GAEP**, Georgia Association of Environmental Professionals, Contact Nicole Jessup, njessup@aesatlanta.com, <http://www.naep.org/georgia-association-of-environmental-professionals> , <http://www.gaep.org/>
- **GAWP**, Georgia Association of Water Professionals. Numerous different professional committees. Contact Ashley Simone, asimone@gawp.org, (678) 540-7326, <http://www.gawp.org/>
- **GCS**, Green Chamber of the South, promoting green sustainable business practices, Atlanta , GA, <https://greencs.org/>, contact Scott Sadler, 404-343-2026, scott@boardwalkcm.com
- **GBA**, Georgia Brownfields Association, <http://georgiabrownfield.org/> , Contact Kelly Andrews, kelly@hlstrategy.com
- **GERA**, Georgia Environmental Restoration Association, Atlanta, GA, <http://www.garestoration.org/>, contact Carly Shuman at garestoration@gmail.com
- **GGS**, Georgia Geological Society, Carrollton, GA, , <https://www.westga.edu/~ggsweb/> , contact Randy Kath, PhD, rkath@westga.edu , (678) 839-4063
- **GGWA of GAWP**, Georgia Ground Water Association, Contact Greg Cherry, gcherry@usgs.gov, (678) 924-6632, <http://www.gawp.org/group/ggwa>.
- **GSPE**, Georgia Society of Professional Engineers, . <http://www.meetup.com/Georgia-Society-of-Professional-Engineers-Atlanta-Metro/> Contact Ken Quintana, P.E., Secretary, 770-827-8627, ken_quintana@comcast.net
- **GTEC**, Georgia Tank and Environmental Professionals Association, Info@gteca.com 770.426.1133, <http://gteca.com/>
- **GAWRA**, Georgia Section of the American Water Resources Association, <http://state.awra.org/georgia/index.html>, contact Tony Pelliccia, (770) 952-8643, PellicciaA@cdm.com
- **NGWA**, National Groundwater Association, <http://www.ngwa.org/Member-Center/Membership/Pages/ScientistEngineers.aspx> , Erin Rodgers, erodgers@ngwa.org, (800) 551.7379
- **SAME**, Society of American Military Engineers. Contact Beth Harris, bharris@unitedconsulting.com, (770) 582-2829, <http://sameatlantapo>



*The World Leader in Mobile Dual-Phase/Multi-Phase Extraction and
Patented SURFAC®/ISCO-EFR®/SOLV-IT® Technologies
Treatability Studies/Research & Development
www.ecovacservices.com*

Brownfield Site Remediation

Expedited and Guaranteed In-Situ Remediation of Brownfield Sites using High-Vacuum Extraction Combined with Formulated Surfactants, Biosolvents and Chemical Oxidants

EcoVac Services, a Georgia Corporation, has completed several Brownfield site remediation projects in Georgia and Oklahoma, and have more scheduled for 2017. EcoVac uses a combination of patented mobile technologies that lend themselves to remediation of Brownfield sites where cost and time frame to complete execution are drivers for the real estate transfer parties and state regulators. The patented technologies employed include High-Vacuum Multi-Phase Extraction/ Enhanced Fluid Recovery (EFR®), Surfactant enhanced NAPL and DNAPL remediation (SURFAC®), In-Situ Chemical Oxidation combined with EFR® (ISCO-EFR®), and Viscous NAPL/DNAPL remediation using a combination of biosolvents, surfactants and EFR® (SOLV-IT®).

EcoVac directs testing of site-derived media including NAPL, groundwater, and soil to determine the optimal chemistries and concentrations to be used for each specific site.

Atlanta, GA. EcoVac has completed the remediation of a large TCE solvent plume under the Brownfield Program using a combination of EFR and ISCO-EFR® in 51 field days between October and December of 2015. Most of the implementation was performed inside of an existing building with TCE concentrations of up to 1,400,000 ppb in saturated and vadose zone soil extending from below the slab to 25 feet below grade

LaGrange, GA. EcoVac has been approved by Georgia Environmental Protection Division to remediate a second large site under the Brownfield Program. The approach will use the SOLV-IT® process for remediation of Number 4 oil NAPL over six feet thick at depths of approximately 25 feet below surface grade. This site remediation is being funded by EPA grants and is scheduled for mid-2016 and will use EFR® as the delivery and recovery platform for the introduction and extraction of plant-derived biosolvents for viscosity reduction prior to injection of a site-specific formulated Type III mobilizing surfactant.

Oklahoma City, OK, Site # 1. EcoVac completed remediation of a small gasoline plume under the Brownfield Program implementing ISCO-EFR® over a two day period. The plume was 75 feet by 60 feet and groundwater was at a depth of 7 feet below ground surface. Six wells were treated. Post remediation monitoring showed benzene concentrations below MCLs and site closure was obtained to expedite an on-going construction project.

Oklahoma City, OK, Site # 2. EcoVac completed remediation of a large SPH plume (a mixture of diesel fuel, kerosene, naphthalene, gasoline, and crude oil) under the Brownfield Program implementing EFR® and SURFAC® over a thirty-one day period. The plume was 250 feet by 150 feet and groundwater was at a depth of approximately 16 feet below ground surface. Twenty-seven wells were treated. Post remediation monitoring showed no SPH in all wells except two, which were located in small oil field disposal pits. The pits were excavated and site closure was obtained to expedite an on-going construction project.

ECOVAC SERVICES

The World Leader in Mobile Dual-Phase/Multi-Phase Extraction and
Patented SURFAC®/ISCO-EFR®/COSOLV® Technologies
Treatability Studies / Research & Development

Guaranteed Fixed Price Closure of Leaking UST Sites

*Average Cost/Duration: \$287,000 for 1/3-acre plume in 4 months

Project Name/Location	Remediation Dates	*Remediation Duration	Remedial Process	Geology/ Hydrogeology	Contaminant/ *Plume Size	*Remediation Cost
Trucking Facility Oklahoma City, OK	Oct 24 to Nov 16, 2007	2 months	SURFAC®	Very Fine grained sand	Diesel Fuel 80' by 70' by 8'	\$225,850
Former Gasoline Retail/ Convenience Store, Del City, OK	Jan 23 to Mar14, 2008	3 months	SURFAC®	Silty clay interbedded w/ clayey silt	Gasoline 200' by 175' by 10'	\$548,100 \$53/yd ³
Former Gasoline Retail/ Convenience Store, Yukon, OK	May 13 to Jun 17, 2008	2 months	SURFAC®	Silty clay interbedded w/ clayey silt	Gasoline 200' by 70' by 7'	\$225,000 \$54/yd ³
Former Texaco Station El Reno, OK	Jul 14 to 31, 2008	1 month	SURFAC®	Silty clay interbedded w/ clayey silt	Gasoline 120' by 60' by 8'	\$70,000 \$44/yd ³
Active Truck Fueling Facility Marietta, OK	Jun 18 to Jul 31, 2008	2 months	SURFAC®	Silty Clay	Diesel Fuel 60' by 60' by 5'	\$183,000
Active Gasoline Retail/ Convenience Store, Cromwell, OK	Aug 11 to Oct 1, 2008	3 months	SURFAC®	Sandstone	Gasoline 240' by 120' by 8'	\$450,700 \$53/yd ³
Active Gasoline Retail/ Convenience Store, Norman, OK	Nov 17 to Dec 11, 2008	2 months	SURFAC®	Very Fine grained sand	Gasoline 200' by 70' by 8'	\$219,500 \$53/yd ³
Former Gasoline Retail/Convenience Store, Oklahoma City, OK	Apr 7 to May 3, 2008 Jun 18 to Jul 10, 2008; Jan. 5 to 8, 2009	10 months	SURFAC® ISCO- EFR®	Silty clay interbedded w/ clayey silt	Gasoline 250' by 190' by 6'	\$574,000 \$54/yd ³
Former Gasoline Retail/ Convenience Store, Jenks, OK	Feb 23 to Mar 5, 2009	2 months	SURFAC® ISCO- EFR®	Very Fine grained sand	Gas/Diesel Fuel 100' by 75' by 10'	\$148,200 \$54/yd ³
Active Gasoline Retail/ Convenience Store, Lawton, OK	Mar 10 to 24, 2009; Nov. 5 to 27, 2009	9 months	SURFAC® ISCO- EFR®	Sandy clay with interbedded clay	Gasoline 12,500 sq. feet	\$163,500 \$39/yd ³
Active Fuel Distribution Facility Oklahoma City, OK	Mar 11 to Apr 24, 2009	2 months	SURFAC®	Siltstone/Sandstone	Gasoline 100' by 80' by 10'	\$180,500 \$61/yd ³

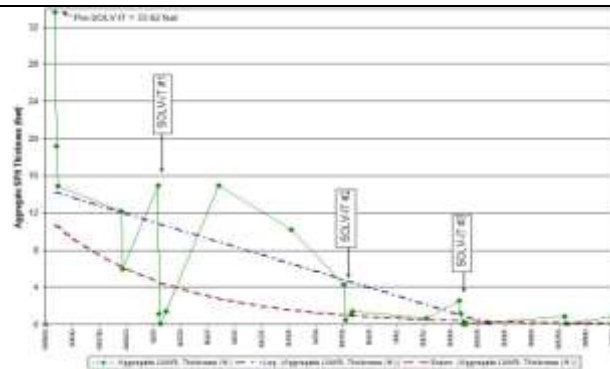
ECOVAC SERVICES

The World Leader in Mobile Dual-Phase/Multi-Phase Extraction and Patented SURFAC[®]/ISCO-EFR[®]/SOLV-IT[®] Technologies Treatability Studies/Research & Development

SITE /LOCATION	Former wagon axle grease manufacturing plant in Jersey City, New Jersey
SITE HISTORY:	The site was initially occupied in the 1880s by a company that manufactured axle grease for wagons by mixing pine tar with other compounds. The current owner operated a diner for many decades which was closed in 2007, and had difficulty selling the property after discovery of the pine tar plume .
SITE GEOLOGY:	Heterogeneous mixture of sandy silt, clay, gravel, and fill materials
PLUME DESCRIPTION :	Pine tar NAPL plume with approximate dimensions of 80 x 120 ft (thicknesses up to 8 feet), existing at depths of 3 to 11 feet below ground surface. Pine tar is similar to coal tar as both are produced by carbonization, consist of aromatic hydrocarbons, and are highly viscous, high surface tension substances.
REMEDIAL ALTERNATIVES:	Excavation at the site was estimated at up to \$2 million, well beyond the budget of the site owner. EcoVac's SOLV-IT [®] treatability testing identified a treatment train of a plant-based solvent followed by an EcoVac Formulated Surfactant (EFS [™]) that achieved >90% reductions in column testing. EcoVac's SOLV-IT [®] was selected as the only cost effective solution, with a total budget estimated of less than \$280,000. Other in situ technologies were evaluated as ineffective or cost prohibitive for the site.
SOLV-IT[®] RESULTS:	Pine tar was detected at 22 wells with aggregate thickness up to 33.6 feet. SOLV-IT [®] injections were conducted in Jan, May, and Aug 2010. Post injection gauging has indicated complete elimination of highly viscous pine tar NAPL. The total volume of pine tar recovered during SOLV-IT [®] operations exceeded the original estimated plume volume.
SOLV-IT[®] COLD WEATHER INJECTION:	Ambient temperatures in the 10 to 20° F range in January required a diesel-fired water heater and double diaphragm pump for adequate surfactant mixing. Solvent drums were sheltered with a space heater to avoid gelling.
REMOVAL COST COMPARISON :	Excavation costs would have exceeded \$2,500 per gallon of pine tar. SOLV-IT [®] remediation was conducted for approximately \$300 per gallon of pine tar removed, resulting in an 88% savings versus excavation.



Operating in Snowy Conditions at the Jersey City Site



Aggregate Pine Tar NAPL Reduction Graph

**765 Ash Street, Suite 100, Canton, GA 30114
(770) 592-1001 - Fax (770) 592-1801**

ECOVAC SERVICES

*The World Leader in Mobile Dual-Phase/Multi-Phase Extraction
Patented SURFAC[®]/ISCO-EFR[®]/SOLV-IT[®] Technologies
Treatability Studies/Research & Development
www.ecovacservices.com, 770/592-1001*

Groundwater Remediation

Rapid, Meticulous, Cost-Effective, Green, Guaranteed-Fixed Price Site Closures

Remediate Groundwater Sites Impacted with:

- Fuels (gasoline, diesel, jet fuel)
- Solvents (chlorinated hydrocarbons: TCE, PCE, DCE)
- Highly viscous hydrocarbons (Creosote, Coal Tar, Pine Tar, No. 6 fuel oil)

EcoVac's Innovative Solutions Include:

- Enhanced fluid recovery (EFR[®]), a mobile, vacuum-enhanced dual-phase/multi-phase extraction (DPE/MPE) for the removal of all VOC phases (i.e. separate, adsorbed, dissolved, and vapor phases) from the entire soil column utilizing a single remedial process. This process provides an expedited and mobile cost-effective-efficient solution for NAPL and dissolved phase plumes.
- Remediation of NAPL (LNAPL and DNAPL-TCE/PCE) utilizing our patented SURFAC[®] process, which combines the elements of specially formulated surfactant emplacement with EFR[®].
- Remediation of dissolved phase VOCs utilizing our proprietary ISCO-EFR[®] process, which combines the elements of chemical oxidant emplacement with mobile EFR[®].
- Remediation of viscous LNAPLs and DNAPLs, such as coal tar, creosote, crude oil, and no. 6 fuel oil (bunker fuel) with our patented process SOLV-IT[®] utilizing EcoVac Formulated Solvents (EFS[®]) combined with the SURFAC[®] and EFR[®] processes. Tar site remediation project summary available.

Background

EcoVac Services is a remediation services firm formed in 1995 with a multidisciplinary staff and affiliated offices positioned in numerous states providing services nationwide.

We pioneered, patented and provide expedited and cost-effective in-situ, mobile remedial solutions for groundwater sites impacted with fuels, solvents and other highly viscous VOCs. We have applied our cost-efficient technologies with regulatory acceptance in over 41 states and PR.

Our Differentiators & Benefits

- Field Proven (over 15,000 events, 2,500+ sites, 450+ clients)
- Effective (recovered over 2+ million gallons of fuel & other VOCs)
- All NAPLs (DNAPLs like TCE and LNAPLs)
- Viscous NAPLs, too (creosote, coal tar)
- Rapid Remediation Closure (mos. vs. yrs., 2.5 acre plume in 33 days)
- Hydraulic Containment (prevents plume displacement)
- Highly competitive (\$43/gal contaminant recovery for closure)
- Guaranteed Fixed Price Fuel Site Closures (avg \$300K for 1/3-acre gas plume)
- Performance Based Remediation (PBR)/Pay for performance (PFP)
- Innovative (multiple patented technologies)
- Remedial Process Optimized (continuously by on-site operator)
- Site-specific treatability/optimization studies
- Customized Treatment Train & Amendments (customized for each site)
- 100% Mobile (no fixed installation; \$zero O&M)
- In-situ, 24-7 (beneath structures, too, minimally disruptive)
- All Lithologies (clays to fractured bedrock)
- Deep (effective to 150 feet below ground surface)
- Scalable (remediate unlimited size plumes)
- Green Sustainable Remediation (70% less GHG than fixed system)
- Nationwide Regulatory Accepted (operated in 41 states since 1995)
- Small Business, NAICS Code 592910, Remediation Services
- Perfect Safety Record

The Green Sheet is a complimentary newsletter of **EcoVac Services, Inc.** To unsubscribe or **subscribe** for periodic updates, or to add/edit information email rob.kelly@ecovacservices.com. For more information about EcoVac Services see <http://www.ecovacservices.com/> or to request a proposal email nick.athens@ecovacservices.com