



## **EBC Emerging Contaminants Program Understanding the Science and Toxicity of PFAS – A Deeper Dive**

Thursday, May 2, 2019

Framingham, MA

### **AGENDA**

- 8:00 a.m. Welcome**
- Frank Ricciardi, Chair, EBC PCB & Emerging Contaminants Subcommittee  
Vice President, Weston & Sampson
- Welcome to Bowditch & Dewey, LLP: Robert D. Cox, Jr., Managing Partner**
- Introduction, Program Purpose, and What You Will Learn**
- Elizabeth Denly, Program Chair and Moderator  
Program Director – PFAS Group, TRC
- 8:15 a.m. General Overview of PFAS**
- Elizabeth Denly, Program Chair and Moderator  
Program Director – PFAS Group, TRC
- 8:30 a.m. Analytical Laboratory Considerations for PFAS**
- Jim Occhialini, Vice President, Alpha Analytical
- 9:00 a.m. PFAS: Toxicology, Health Effects, and Risk Information**
- Karen Vetrano, Ph.D., Risk Assessment & Toxicology Manager, TRC
- 9:30 a.m. PFAS Fate & Transport**
- Steven LaRosa, Technical Leader, Weston & Sampson
- 10:00 a.m. Networking Break**
- 10:30 a.m. PFAS Forensics: Chemical Signatures in Surface Water and Groundwater**
- Andrew Cohen, Ph.D., PH, Principal Hydrogeologist, TRC
- 11:00 a.m. PFAS: A Legal Perspective**
- Robert D. Cox, Jr., Partner, Bowditch & Dewey, LLP

**11:30 a.m. Moderated Discussion and Q&A**

Moderator: Elizabeth Denly, TRC

Panel Members:

- Andrew Cohen, TRC
- Robert Cox, Bowditch & Dewey, LLP
- Steven LaRosa, Weston & Sampson
- Jim Occhialini, Alpha Analytical
- Karen Vetrano, TRC

**12:00 p.m. Adjourn – Closing Remarks**

**PROGRAM CHAIR**

**Elizabeth Denly**, Program Director – PFAS Group

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Ms. Denly is a Director in the Technical Development Unit and is the Chemistry/Quality Assurance Director in the Environmental Sector at TRC. She is a chemist with 29 years of consulting experience encompassing field and laboratory analyses and audits, QA/QC, data validation, and consulting for regulatory agencies.

Ms. Denly is a leader in ITRC's PFAS and TPH Risk Work Groups and in TRC's Center of Research & Expertise (CORE) Emerging Contaminants Team and recently received the ITRC's Industry Member of the Year Award for 2017. She is currently focusing on PFAS, specifically the nomenclature, chemistry, sampling procedures, QA/QC, and laboratory analytical methodologies, and has a significant role in educating clients, attorneys, and regulators about PFAS.

As a senior QA specialist at TRC, Ms. Denly is responsible for providing QA/QC oversight in support of a variety of environmental investigations and remediation programs including risk-based soil cleanups, ambient air monitoring, and human health and ecological risk assessments. In this role, she has directed the preparation of QAPPs, coordination with the laboratory, selection of the appropriate analytical methodologies to achieve the desired remedial standards, oversight and performance of the data validation process, and determination of the usability of the data and achievement of data objectives.

**SPEAKERS**

**Andrew J.B. Cohen**, Ph.D., PH, Principal Hydrogeologist

TRC

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Dr. Cohen has 25 years of experience in the technical analysis, management, reporting, presentations, and remedial strategy design associated with contaminated groundwater, soil, and sediment. His focus areas include site investigations and forensic hydrogeology; contaminant source, transport, and fate assessment/modeling; Conceptual Site Model (CSM) development; groundwater-surface water

interaction; and fractured rock characterization. He is currently serving as a technical resource and program manager on complex groundwater projects, including environmental litigation support.

Dr. Cohen received his degree in Civil & Environmental Engineering from the University of California, Berkeley, and has served as Adjunct Professor of Contaminant Hydrogeology at NJIT and Montclair State University. He authored the USEPA/USDOE report "Characterization of Fractured Rock Formations, A Guide for Groundwater Remediators" while working at Lawrence Berkeley National Laboratory.

**Robert D. Cox, Jr.**, Partner

Bowditch & Dewey, LLP

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Bob Cox is an environmental lawyer with over 30 years of experience helping clients with complex, technically challenging environmental compliance and enforcement actions. Bob counsels primarily businesses, public utilities and municipal authorities in water, air, hazardous waste and solid waste matters before EPA, MassDEP and municipal regulatory boards. He represents clients in cost recovery claims in private party litigation under Chapter 21E and CERCLA in state and federal courts. Bob regularly advises clients on brownfields development activities and on strategies to limit or shift environmental liability risks in connection with real estate or business transfers. He has extensive experience advising and defending clients before local boards with respect to license and permitting issues. He also has significant experience in NPDES water permitting, including appeals of NPDES permits, as well as administrative appeals and hearings on MassDEP issued permits. He defends claims and actions brought by government environmental enforcement agencies.

Bob is recognized as one of the top environmental lawyers in Massachusetts by *Chambers USA, America's Leading Lawyers for Business*. He has been selected by his peers as one of the *Best Lawyers in America* in the practice area of Environmental Law and Litigation – Environmental, and since 2004, has been selected for inclusion in *Massachusetts Super Lawyers*.

Bob is Managing Partner at Bowditch. He is Chair of the Environmental Business Council of New England. He also serves as Clerk, Worcester Regional Chamber of Commerce, and Chair, Mayor's Brownfields Task Force, City of Worcester, and is a member of NAIOP's Massachusetts Brownfields Redevelopment Committee.

**Steven LaRosa**, Technical Leader

Weston & Sampson

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Steven LaRosa Team Leader/Senior Project Manager - Steve has over 30 years of experience in the field of environmental assessment and clean up. He has been responsible for design and implementation of Phase I, II, and III Environmental Site Assessments and remediation at dozens of petroleum and hazardous waste sites throughout New England. Steve is currently managing PFAS related projects at Weston & Sampson. He is a leading member of our Emerging Contaminants Work Group and is a member of the national ITRC PFAS Training Subgroup. Steve has designed and overseen the implementation of sampling and evaluation of PFAS sources and impacts to drinking water wells in Bennington and Pownal Vermont, Burrillville, Scituate and Charlestown Rhode Island, and several sites in New Hampshire. Mr. LaRosa has presented PFAS related talks at a dozen professional meetings including the 2018 Society of Environmental Toxicology and Chemistry – North Atlantic Chapter and 2018 Battelle International Symposium on Bioremediation and Sustainable Environmental

Technologies. He also attended the National Emerging Contaminants Conference in 2018 and the EPA Region I Public Outreach meeting in New Hampshire in 2018.

**Jim Occhialini**, Vice President

Alpha Analytical

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Jim Occhialini is a vice president with Alpha Analytical and he serves as the practice leader for the laboratory's specialty analytical services group. Jim has 40 years of environmental analytical and consulting experience working on a wide range of projects. Jim is very active with a number of regulatory workgroups and industry associations where he has given numerous technical presentations and training programs.

**Karen Vetrano**, Ph.D., Risk Assessment and Toxicology Manager

TRC

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Dr. Vetrano has over 29 years of experience and manages TRC's Risk Assessment and Toxicology Practice as well as the Odor Evaluation and Control Group. She supervises projects that include human health and ecological risk assessments, toxicological evaluations, exposure assessments, labeling and odor evaluation, indoor air quality, and industrial hygiene program reviews. Dr. Vetrano provides management and technical support for the various components of human exposure and health risk assessments under such programs as Superfund, Resource Conservation and Recovery Act (RCRA), California Proposition 65, the Massachusetts Contingency Plan (MCP) (as well as other individual State programs) and EPA's Brownfield Program. She also provides technical oversight support to government agencies on site investigation and remediation projects, including participating in scoping for investigations and review of investigation work plans and reports. She recently served as a volunteer co-author for Section 3: "Human and Ecological Impacts" of the National Ground Water Association's document, *Groundwater and PFAS: State of Knowledge and Practice*. Specifically, Dr. Vetrano wrote the Human Exposure and Risk Assessment sub-sections. She also provided peer-review for the toxicology subsection provided in Section 3.

### UPCOMING EBC PROGRAMS

May 7 – New Hampshire Program: Update on NHDES Wetlands Rulemaking

May 8 – Solid Waste Management Discussion Forum: MassDEP Solid Waste Master Plan for 2020-2030

May 9 – Spotlight on Success: The 2018 Ascending Leaders Award Recipients Panel

**May 10 – Emerging Contaminants Program: PCB Air Sampling and Encapsulation**

May 21 – Solid Waste Management Program: Organics in Massachusetts

May 23 – Evening Program: Climate Programs from the City of Boston and the Commonwealth

**May 29 – Site Remediation and Redevelopment Program: Brownfields Tax Credits**

June 3 – Solid Waste Management Committee Program Planning Meeting

**June 4 – Rhode Island Program: RIDEM Implementation of the Generator Improvements Rule**

**June 11 – Connecticut Program: Remediation Standards Update**

June 12 – Solid Waste Management Program: New England Conference of State Solid Waste Directors

**June 14 – Site Remediation and Redevelopment Program: Risk Communication**

**June 19 – EBC 26<sup>th</sup> Annual EBEE Awards and 29<sup>th</sup> Annual Meeting**

**June 25 – New Hampshire Emerging Contaminants Program: Update on PFAS**

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