

# MEMO

To: Portsmouth City Council  
From: Councilors Cliff Lazenby and Deaglan McEachern  
Date: September 30, 2020

Re: Formation of Safe Water Advisory Group

---

Because PFAS (Per- and Polyfluoroalkyl Substances) contamination has impacted the City of Portsmouth with legislative, health advisory and fiscal changes, it would be helpful for the City Council to gather advisory input from local stakeholders, scientists and activists focused on the issue. This idea was developed in consultation with Portsmouth residents and safe water activists Andrea Amico and Lindsey Carmichael and Councilors Lazenby and Pearson over numerous meetings during 2018-19, and in 2020 with Councilor McEachern.

### Proposed Action

Formation of the Portsmouth Safe Water Advisory Group as an advisory group related to Safe Drinking Water.

### Proposed Mission

To review and communicate the latest science on the health and environmental effects of PFAS, to monitor federal and state level legislative changes, and to anticipate policy changes that could impact the city of Portsmouth.

### Proposed Participants

Two City Councilors, two to four community members, one Portsmouth Firefighter, two to three City of Portsmouth staff (Public Works, Health), one Portsmouth School Board member, one medical professional, one to two NH State legislators representing Portsmouth.

### Activities the Group Should Be Engaged In

Conduct review of periodic City well monitoring results, legislative trends in NH and other states, current science on PFAS exposure. Provide periodic report back to the City Council as needed. It is suggested that the group meet quarterly or every other month.

Portsmouth Safe Water Advisory Group (SWAG) Proposed Participants  
(all confirmed)

<u>Role</u>	<u>Name</u>
City Councilors	Cliff Lazenby
	Deaglan McEachern
Community Members	Andrea Amico
	Lindsey Carmichael
	Katie Hillman
	Rich DiPentima
City of Portsmouth - Fire Department City of Portsmouth - Water Department City of Portsmouth - Health Department City of Portsmouth - School Board	Russ Osgood
	Brian Goetz
	Kim McNamara
	Hope Van Epps
Environmental Scientist/Medical Professional	Dr. Laurel Schaider
State Legislators from Portsmouth	Rep. David Meuse
	District 21 Senator as Elected Nov '20 (both Rep & Dem confirmed)

Attached: Biographies of non-City of Portsmouth staff/elected officials

## **Andrea Amico Bio**

Andrea Amico is a Portsmouth resident, a mother of 3 children, an occupational therapist, and a PFAS community leader. She became a PFAS advocate starting in May of 2014 when she first learned of water contamination at the Pease Tradeport causing the Haven well to close down. Her husband and two older children were exposed to contaminated drinking water at Pease while attending work and daycare causing her to become educated and start advocating for action and answers for her family and the Pease community.

She co-founded the community action group called Testing for Pease and successfully advocated for the state of New Hampshire to provide a blood testing program starting in 2015. She served on the City of Portsmouth Community Advisory Board (CAB) in 2015 established by then Portsmouth Mayor Robert Lister. She joined the Pease Community Assistance Panel (CAP) with the federal health Agency for Toxics Substances and Disease Registry (ATDSR) in 2016 and is still a current member. She joined the Pease Restoration Advisory Board (RAB) with the US Air Force in March of 2019 and became the RAB community co-chair in December 2019 and remains a current member. She is a founding member of the National PFAS Contamination Coalition (NPCC) which is a group of PFAS community leaders across the nation working to bring action and answers to communities impacted by PFAS contamination since 2017.

She has educated herself on the extensive science and complex problems surrounding PFAS contamination. She has worked closely with local, state, and federal leaders to share the community perspective and problem solve short- and long-term solutions. Her advocacy and dedication to action on PFAS has led to many accomplishments over the last several years. In 2018, she was invited by Senator Maggie Hassan to testify at the first ever US Senate hearing on PFAS. In 2019, she attended the President's State of the Union Address with Senator Jeanne Shaheen to raise awareness of PFAS issues in NH and across the nation at a high profile, federal event. She helped to organize two National PFAS conferences in June 2017 and June 2019 at Northeastern University in Boston, Massachusetts (and is currently helping to plan a third National PFAS Conference in June 2021). She helped to advocate for two human health studies being offered at Pease and continues to work closely as a community partner on these studies.

Andrea is passionate about raising awareness of PFAS water contamination, providing education to impacted communities, lowering standards for PFAS in drinking water, advocating for medical monitoring guidelines, and collaborating with others from all aspects of PFAS (communities, physicians, legislators, researchers, government agencies, etc) to achieve a common goal of reducing PFAS exposure to communities across the nation.

## Lindsey Carmichael, MPH Biography

---

Lindsey graduated with a bachelor's degree from the University of Vermont in English and earned a master's degree from the University of New Hampshire in Public Health.

While in graduate school, Lindsey's eyes were opened to the disturbing reality that many of the products we consume contain ingredients known to pose a threat to human health, particularly the health of children. That experience along with her role as a mother to a child with severe asthma fueled her desire to create a road map for others to identify safer food, personal care and cleaning products. The road map turned into the book *Greening Your Family*, published in 2009.

Lindsey is a member of the Pease Community Advisory Panel run by the federal public health agency ATSDR for the ongoing Pease Tradeport water contamination issues. She was a co-founder of the community action group New Hampshire Safe Water Alliance, and is engaged in local, state, and federal policy work to address PFAS contamination of our water supplies. In March of 2018 Lindsey was awarded the 'Science for the Benefit of Environmental Health' award by the Toxics Action Center and Boston University Superfund Research Program for her work to stop toxic chemical contamination in the New Hampshire Seacoast. Lindsey is an instructor for the Wentworth-Douglass hospital wellness program, LIFE, helping participants develop an understanding of harmful chemicals found in everyday household products and teaching strategies to reduce exposure to them.

In her free time she enjoys spending time with her family, walking her dog, and playing golf.

## CURRICULUM VITAE

Richard T. DiPentima  
16 Dunlin Way  
Portsmouth, NH 03801

Telephone Number  
(603) 559-9765 (H)

**PERSONAL:** Married, two children      Citizenship: USA

**EDUCATION:** University of Oklahoma Health Science Center  
Oklahoma City, Oklahoma. Department of Health Administration.  
**Master of Public Health Degree**, December 1975.

Major in Health Administration and Policy with emphasis on Health Planning and Health Service Administration. Other areas of interest included Environmental Health and Infectious Disease Epidemiology.

University of Connecticut, Storrs, Connecticut.  
**Bachelor of Science Degree in Nursing**, 1974.

A general baccalaureate program providing clinical experience in a wide variety of inpatient and community based ambulatory care settings. Emphasis placed on family centered approach to health care, prevention and health education.

University of Connecticut, Storrs, Connecticut.  
**Bachelor of Arts Degree**, 1967.

Major: Sociology      Minor: Business  
Emphasis on Industrial Sociology, Business Law and Industrial Management.

Centers for Disease Control and Prevention, Epidemiology in Action Course. Two-week intensive program dealing with all aspects of Epidemiology including, disease outbreak investigations and hands-on experience with "Epi Info v 6.2" an epidemiology program for microcomputers. May 1995.

U.S. Air Force School of Aerospace Medicine, Environmental Medicine Residency. Fourteen-week course concentrating on Industrial Hygiene, Occupational Health, Toxicology, Hearing Conservation, Environmental Health, Food Service Sanitation and Inspection, Veterinary Public Health and Industrial Safety. Other major areas of study included sexually transmitted diseases, epidemiology, communicable disease control and vector-borne diseases. June-September, 1981.

University of Miami School of Medicine, Department of Epidemiology and Public Health. Pesticide Protection Course for health personnel, February 1980.

U.S. Air Force School of Aerospace Medicine, Certified Hearing Conservationist Course, November-December, 1978.

Yale University, New Haven, Connecticut.  
Consortium Continuing Education Project, October-December, 1976. Public Budgeting for Health Services Administration. Twenty-five hour non-credit course. Course concentration on program budgeting, cost effectiveness and financial planning.

University of Connecticut School of Medicine  
Physical Assessment Course for Nurse **Practitioners.** Two-week intensive program designed to develop physical assessment skills for nurses functioning in an expanded role, June 1974.

#### **ELECTED OFFICE:**

Elected to the New Hampshire House of Representatives for Rockingham District 16, November 2008 and 2010. Member of the House Health, Human Services and Elderly Affairs Committee.

#### **PROFESSIONAL AFFILIATIONS:**

Board of Directors, New Hampshire Public Health Association  
Member of Sigma Theta Tau, National Honor Society of Nursing.  
Appointed by Governor to the State Waste Management Council 1999.

#### **AWARDS/SCHOLARSHIPS:**

Awarded Department of Health, Education and Welfare General Purpose Traineeship, Fall, 1975.  
Selected as Outstanding Biomedical Service Corps Officer for the U.S. Air National Guard, 1991.  
Awarded US Air Force Meritorious Service Medal, 1996.  
University of Connecticut School of Nursing Outstanding Alumni Award for Clinical Excellence in Nursing, 2009.  
New Hampshire Public Health Association Roger Fossum Lifetime Achievement Award 2010.  
New Hampshire oral health Coalition 2010 Oral Health Champion Award.  
Breath New Hampshire Legislative Leadership Award 2010.

## **PUBLICATIONS:**

Elevated Blood Lead Levels in Refugee Children-New Hampshire, 2003-2004, MMWR, Vol. 54, No. 2, January 21, 2005.

Fatal Pediatric Lead Poisoning-New Hampshire, 2000, MMWR, Vol. 50, No. 22, June 8, 2001.

Hepatitis B Virus Transmission in an Elementary School Setting, Journal of the American Medical Association, December 24/31, 1997, Vol. 278, No. 24.

Human Rabies-New Hampshire, 1996, MMWR, Vol. 46, No. 12, March 28, 1997.

Cost Benefit of Providing Comprehensive Case Management for Lead Burdened Children, Journal of Environmental Health, May 1995.

Definition of Public Health and Relationship to Prevention, Healthcare Review, Issue 7, 1998.

Published a number of articles in the NH Communicable Disease Bulletin.

## **FACULTY APPOINTMENTS:**

Golden Gate University Extension Off-Campus Program.  
Instructor of Health Care Administration in the Graduate School of Public Administration. 1984

New Hampshire Technical Institute part-time instructor in the Division of Nursing. Lecture on Sexually Transmitted Diseases and Communicable Diseases.

University of New Hampshire Department of Health Management and Policy. Instructor HMP-501 Epidemiology and Community Medicine. 2002-2003

University of New Hampshire Continuing Education Department.  
Teach course on Food Service Sanitation and Preventing Foodborne Illness.

University System of New Hampshire, Granite State College.  
Instructor Health Care Policy, Diseases of the 21<sup>st</sup> Century,  
Emerging Health Care Systems, Anatomy and Physiology .

**EXPERIENCE:**

February 2006 to present Part-time public health consulting and training. Instructor for Granite State College.

January 1998 to January 2006 Full time 40+ hours per week. Manchester Health Department, Manchester, New Hampshire.

**Deputy Public Health Director:** Perform management, supervisor and Technical duties related to the functions of a multi-disciplinary Active local public health department. Direct complex public health assessment and epidemiological studies and design community intervention strategies for public health concerns. Coordinate the administration of several grant programs and participates in resource development for the Department and the community. Serves as Acting Public Health Director when required.

August 1994 to January 1998 Control. NH Division of Public Health Services, Bureau of Disease Concord, New Hampshire. Full Time 40 hours per week.

**Chief, Communicable Disease Epidemiology:**

Responsible for management of the Communicable Disease Epidemiology Program, Refugee Program and Tuberculosis Control Program. Responsible for investigation of disease outbreaks, surveillance, rabies control, reporting, providing continuing education to Health Care Providers and the public. Conduct epidemiological investigations for various infectious disease outbreaks. Coordinate with Food Protection Bureau, CDC, FDA and USDA as necessary. Write reports and publish articles in the NH Epidemiology Bulletin. Manage Tuberculosis and Refugee Grants with CDC as well as contracts with local Health Departments. Supervise ten staff including, 8 professional and two clerical. Also serve as the Division's Distant Learning Coordinator with CDC. Supervisor: Dr. Jesse Greenblatt, MD, MPH, State Epidemiologist. (603) 271-4496.

May 1984 to January 1996 NH Air National Guard, Pease ANGB Newington, New Hampshire. Part-time: One weekend per month, plus two weeks active duty per year. Retired with the rank of Lieutenant Colonel



January 1996.

**Chief Public Health Officer:** Responsible for the management of all public health and occupational medicine programs for the New Hampshire Air National Guard.

June 1991  
to August 1994

City of Manchester Health Department  
Manchester, New Hampshire. Full Time 40 hours per week.

**Chief, Division of Environmental Health:**

Responsible for planning, directing, coordinating and supervising all environmental health activities carried out within the Division. Major program areas include food-service sanitation and inspection, subsurface sewage disposal, lead poisoning prevention, occupational health, indoor air quality, public bathing facilities and public health complaints. Evaluated and recommended public health standards and legislation. Advised governmental, community, individuals and private and public organizations on environmental health issues. Planned and conducted professional environmental and public health education training programs. Coordinated epidemiological investigations for specific disease outbreaks. Supervises Division staff and evaluates personal performance. Supervisor: Mr. Fred Rusczek, MPH, Health Officer, (603) 624-6466.

March 1984  
to June 1991

State of New Hampshire Division of Public Health Services  
Concord, New Hampshire.

**Assistant Director of Public Health:**

Responsible for the management to the Office of Disease Prevention and Control. The Office consisted of three Bureaus including, Disease Control, Health Promotion and the Public Health Laboratories. Program elements included: Epidemiology, Communicable Disease Control, Chronic Disease Epidemiology and Clinical laboratory Management. Prior to a reorganization in 1990, I was also responsible for the Bureau of Environmental Health, Radiological Health Food Protection and Occupational Health. Overall budget for the Office is in excess of \$3.8 million. Other duties included legislative policy development, liaison with other state, federal, local agencies as well as with industry and consumer interest groups. Reported directly to the Director of Public Health. Supervisor: Dr. William Wallace, MD, MPH, Director, Division of Public Health Services

July 1978  
to March 1984

U. S. Air Force  
Tyndall AFB, Florida and Pease Air Force Base, New Hampshire.  
Full time 40 hours per week

**Chief, Environmental Medicine:** Responsible for the management and conduction of the Occupational Health and Safety Program for approximately nine hundred civilians and twenty-five hundred military personnel. A large aspect of this position was the management of the food service sanitation and inspection program. This included the inspection of food service establishments, commissary inspection of food receipts, meat and egg inspection and rations. Program responsibility included: medical surveillance, industrial shop monitoring of over fifty work centers and pollution control. Other major programs within my scope of responsibility included, health education, communicable disease control and epidemiology, preventive medicine, vector-borne disease surveillance and disaster response planning.

March 1976  
to July 1978

Northeast District Department of Health  
Danielson, Connecticut.

**Director of Health:** Chief Executive Officer for a ten-town Public Health District consisting of over sixty-five thousand population over a four hundred square mile area. Responsible for the overall management of a full range of public health programs including: environmental health, food inspection and sanitation, Epidemiology, disease outbreak investigations, communicable disease control, dental health, immunizations, health education, hypertension control, and geriatric health. Also, the department managed a Sexually Transmitted Disease Clinic. Major responsibilities included financial planning, budgeting, program planning, and grant preparation and management. A major aspect of this position included coordination with local, state, and federal agencies as well as various State and Federal Legislators. Initiated a primary care project, which included obtaining the designation as a Medically Under-served Area for the region. Responsible to a Board of Health while maintaining close relations with local elected officials and commissions.

Summer 1975

The University of Oklahoma Hospital, and Clinics  
Oklahoma City, Oklahoma.

**Administrative Residency:** Involved directly in all areas of administrative responsibility while working directly with Assistant Administrators for Inpatient and Ambulatory Services.

Concentrated in areas of manpower planning, budget control and quality assurance.

Part-time                    **Staff Nurse:** Post-Coronary Care Unit, Mercy Hospital, Oklahoma City, Oklahoma.

Summer 1974                **Nurse Practitioner:** The University of Connecticut Student Health Service.

1967-1971                   **Supply Officer:** United States Air Force, Mountain Home Air Force Base, Idaho.

During four years of active duty in the Air Force, held various staff and line positions with progressive increases in responsibility and authority. Managed units consisting of up to seventy military and civilian personnel. Involved in all aspects of management, fiscal control, logistical planning and quality assurance. Attained rank of Captain honorably discharged in September 1971.

**REFERENCES:**            References and academic data available upon request.

## Katie Hillman Biography

---

Katie Hillman has dedicated many years of applying a blend of knowledge and skills to help solve environmental challenges. Focusing mostly on water resources related issues, she has worked in various positions with state, local and federal agencies, cooperative extension systems and non-profit organizations. She holds a Master of Science in Natural Resources Management from Cornell University and a Bachelor of Arts in Environmental Studies from the University of Vermont. Katie also served in the Peace Corps as a Natural Resource Management volunteer.

She currently owns a small botanical arts business and remains active on an advocacy level such as serving as a board member with the Conservation Law Foundation. She lives in Portsmouth with her family.

## David Meuse Biography

---

David is a recent retiree currently finishing his first term representing Portsmouth Ward 5 in the state legislature. He serves on the House Criminal Justice and Public Safety Committee.

In David's former professional life, he was a partner at Aon Hewitt, one of the largest health and retirement consultancies and benefit administrators in the world. His focus areas were employee communication strategy and customer experience design. He led relationships and projects for many clients and was a cofounder of the firm's Media Solutions Group.

Earlier in his career, he worked as a broadcast journalist for several television stations, including WMUR-TV in Manchester from 1978 to 1981. There he did station ID announcements, field reporting, occasional anchoring, and even helped produce the Uncle Gus Show—once appearing on-camera dressed in a Yogi Bear costume. From there, he worked for Sanders Associates (now BAE Systems) in Nashua as a television producer doing marketing and training videos.

After retiring, David became active in issue advocacy. He organized a chapter of Indivisible in Portsmouth and was elected in 2016 to the Portsmouth Democratic Executive Committee. He has also been active in the Coakley Landfill Right to Know request and helped organize document searches related to the Coakley Landfill Group.

# LAUREL A. SCHAIDER

---

320 Nevada Street, Suite 302  
Newton, MA 02460  
<https://silentspring.org/staff/laurel-schaider-phd>

[schaider@silentspring.org](mailto:schaider@silentspring.org)  
617-332-4288 x224  
[@laurelschaider](https://twitter.com/laurelschaider)

## EDUCATION

---

Ph.D., University of California, Berkeley, Environmental Engineering	2003
M.S., University of California, Berkeley, Environmental Engineering	1998
S.B., Massachusetts Institute of Technology, Environmental Engineering Science	1997

## PROFESSIONAL EXPERIENCE

---

<b>Silent Spring Institute</b>	<b>Newton, MA</b>
Research Scientist, Environmental Engineering and Chemistry	2009–present

- Leader, Cape Cod water quality research program on exposures to PFAS, pharmaceuticals and other unregulated contaminants in drinking water and wastewater.
- Principal investigator, ATSDR-funded study of PFAS health effects in Eastern Massachusetts, one of seven projects funded within the ATSDR/CDC PFAS Multi-site Health Study.
- Principal investigator, NIEHS-funded PFAS-REACH (PFAS Research, Education, and Action for Community Health) study of effects of PFAS exposures on children's immune systems.
- Co-PI, Community Engagement Core for NIEHS-funded URI STEEP (Sources, Transport, Exposure, and Effects of PFASs) Superfund Research Program, including private well water testing program.
- Research areas include: PFAS exposures from drinking water, food packaging, and consumer products, socioeconomic disparities in exposures to drinking water contaminants, effects of septic systems as sources of emerging contaminants, and community engaged research.

<b>Harvard T.H. Chan School of Public Health, Department of Environmental Health</b>	<b>Boston, MA</b>
Visiting Scientist	2018–present
Research Associate	2008–2018
Research Fellow	2005–2008

- Principal Investigator, NIEHS-funded community-based participatory research project to investigate mercury exposure among anglers and their families, including members of Native American tribes, who consumed local fish in rural northeastern Oklahoma.
- Researcher, EPA/NIEHS funded Center for Children's Environmental Health based at the Tar Creek Superfund Site in Oklahoma to investigate children's health and effects of exposure to metal mixtures. Developed and implemented heavy metal fate and transport research project.
- Research Fellow, NSF/NOAA funded research project to investigate mercury biogeochemistry and effects of hurricanes and other sediment disturbances in northern Gulf of Mexico.

<b>Northeastern University, Department of Civil &amp; Environmental Engineering</b>	<b>Boston, MA</b>
Postdoctoral researcher	2004

- Researched methods to estimate metal loading into watersheds and surface waters and prepared technical and progress reports for EPA STAR and grant proposals for NSF.

<b>University of California, Berkeley, Department of Civil &amp; Environmental Engineering</b>	<b>Berkeley, CA</b>
Graduate Student Researcher	1998–2003

- Designed and implemented laboratory research experiments to quantify uptake of metal-EDTA complexes by *Brassica juncea* as part of doctoral dissertation. Advisor Dr. David Sedlak.

## TEACHING EXPERIENCE

---

- Harvard T.H Chan School of Public Health** 2007, 2009, 2018-2020  
Department of Environmental Health, Guest Lecturer for graduate Water Pollution course
- Cyprus International Institute/HSPH, Nicosia, Cyprus** 2007  
Guest Lecturer for graduate Water Pollution course
- Massachusetts Institute of Technology** 2003-2004  
Department of Civil and Environmental Engineering  
Lecturer for undergraduate Fundamentals of Ecology course (30 students)
- Northeastern University** 2004  
Department of Civil and Environmental Engineering  
Lecturer for undergraduate Environmental Engineering I (70 students)
- University of California, Berkeley** 1998  
Department of Civil and Environmental Engineering  
Teaching assistant for Principles of Environmental Engineering & Science (70 students)

## PROFESSIONAL ACTIVITIES

---

- Editorial board member, *Environmental Science & Technology*.
- Grant proposal reviewer for National Institute of Environmental Health Sciences (NIEHS), Maryland Sea Grant College Program and University of Wisconsin Water Resources Institute.
- Ad hoc reviewer for *Applied Geography, Applied Water Science, Archives of Environmental Contamination and Toxicology, Atmospheric Environment, BioScience, Environmental Pollution, Environmental Research, Environmental Science & Technology, Environmental Science & Technology Letters, Environmental Toxicology & Chemistry, Science of the Total Environment*, and others.
- Vice Chair, New England Water Environment Association's Contaminants of Emerging Concern Subcommittee.
- Technical advisor, Agency for Toxic Substances and Disease Registry (ATSDR) Community Assistance Panel for Pease Tradeport.

## HONORS AND DISTINCTIONS

---

- Co-author, 2020 ISES Award for Best *JESEE* Paper
- Co-author, 2017 ISES Award for Best *JESEE* Paper
- Outstanding Graduate Student Instructor Award, UC Berkeley, 1999.
- National Science Foundation Graduate Research Fellowship, 1997
- Richard Lee Russel Award for Excellence in Environmental Engineering, MIT, 1997
- Tau Beta Pi, MIT, 1997
- Sigma Xi, MIT, 1997
- Chi Epsilon, MIT, 1996. Chapter President, 1996-1997

## PUBLICATIONS

---

### Peer-reviewed publications (H-index: 15)

1. Susmann HP, Schaidler LA, Rodgers KM, Rudel RA. 2019. Dietary habits related to food packaging and population exposure to PFASs. *Environmental Health Perspectives*. 127:10.

2. **Schaider LA**, Swetschinski LR, Campbell C, Rudel RA. 2019. Environmental justice and drinking water quality: are there socioeconomic disparities in nitrate levels in U.S. drinking water? *Environmental Health*. 18:3.
3. Cordner A, De La Rosa VY, **Schaider LA**, Rudel RA, Richter L, Brown P. 2019. Guideline levels for PFOA and PFOS in drinking water: the role of scientific uncertainty, risk assessment decisions, and social factors. *Journal of Exposure Science & Environmental Epidemiology*. 29:157-171. 2020 ISES Award for Best JESEE Paper and Web of Science Highly Cited Paper.
4. DeWitt JC, Blossom SJ, **Schaider LA**. 2019. Exposure to perfluoroalkyl and polyfluoroalkyl substances leads to immunotoxicity: epidemiological and toxicological evidence. *Journal of Exposure Science & Environmental Epidemiology*. 29:148-156.
5. Boronow KE, Brody JG, **Schaider LA**, Peaslee GF, Havas L, Cohn BA. 2019. Serum concentrations of PFASs and exposure-related behaviors in African American and non-Hispanic white women. *Journal of Exposure Science & Environmental Epidemiology*. 29:206-217
6. **Schaider LA**, Rodgers KM, Rudel RA. 2017. Review of organic wastewater compound concentrations and removal in onsite wastewater treatment systems. *Environmental Science & Technology*, 51:7304–17.
7. **Schaider LA**, Balan SA, Blum A, Andrews DQ, Strynar MJ, Dickinson ME, Lunderberg DM, Lang JR, Peaslee GF. 2017. Fluorinated compounds in U.S. fast food packaging. *Environmental Science & Technology Letters*, 4:105–111. Web of Science Highly Cited Paper.
8. **Schaider LA**, Ackerman JM, Rudel RA. 2016. Septic systems as sources of organic wastewater compounds in domestic drinking water wells in a shallow sand and gravel aquifer. *Science of the Total Environment*. 547:470-481.
9. Hu XC, Andrews DQ, Lindstrom AB, Bruton TA, **Schaider LA**, Grandjean P, Lohmann R, Carignan CC, Blum A, Balan SA, Higgins C, Sunderland EM. 2016. Detection of poly- and perfluoroalkyl substances in U.S. drinking water linked to industrial sites, military fire training areas, and wastewater treatment plants. *Environmental Science & Technology Letters*. 3:344–50. Web of Science Highly Cited Paper.
10. Dong Z, Lynch RA, **Schaider LA**. 2016. Key contributors to variations in fish mercury within and among freshwater reservoirs in Oklahoma, USA. *Environmental Science: Processes & Impacts*. 18:222-36.
11. Zota AR, Riederer AM, Ettinger AS, **Schaider LA**, Shine JP, Amarasiriwardena CJ, Wright RO, Spengler JD. 2016. Associations between metals in residential environmental media and exposure biomarkers over time in infants living near a mining-impacted site. *Journal of Exposure Science and Environmental Epidemiology*. 26:510-519. **2017 ISES Award for best JESEE paper.**
12. Dong Z, Jim RC, Hatley EL, Backus AS, Shine JP, Spengler JD, **Schaider LA**. 2015. A longitudinal study of mercury exposure associated with consumption of freshwater fish from a reservoir in rural south central USA. *Environmental Research*. 136:155-162.
13. Liu B, **Schaider LA**, Mason RP, Shine JP, Rabalais NN, Senn DB. 2015. Controls on methylmercury accumulation in northern Gulf of Mexico sediments. *Estuarine, Coastal and Shelf Science*. 159:50-59.
14. Judd N, Lowney Y, Anderson P, Baird S, Bay SM, Breidt J, Buonanduci M, Dong Z, Essig D, Garry MR, Jim RC, Kirkwood G, Moore S, Niemi C, O'Rourke R, Ruffle B, **Schaider LA**, Vidal-Dorsch DE. Fish consumption as a driver of risk-management decisions and human health-based water quality criteria. *Environmental Toxicology and Chemistry*. 34: 2427-2436.
15. **Schaider LA**, Rudel RA, Ackerman JM, Dunagan SC, Brody JG. 2014. Pharmaceuticals, perfluoro-surfactants, and other organic wastewater compounds in public drinking water wells in a shallow sand and gravel aquifer. *Science of the Total Environment*. 468-469:384-393.



16. **Schaider LA**, Senn DB, Estes ER, Brabander DJ, Shine JP. 2014. Sources and fates of heavy metals in a mining-impacted stream: temporal variability and the role of iron oxides. *Science of the Total Environment*. 490:456-66.
17. Molina RM, **Schaider LA**, Donaghey TC, Shine JP, Brain JD. 2013. Mineralogy affects geoavailability, bioaccessibility and bioavailability of zinc. *Environmental Pollution*. 182:217-224.
18. Zota AR, **Schaider LA**, Ettinger AS, Wright RO, Shine JP, Spengler JD. 2011. Metal sources and exposures in the homes of young children living near a mining-impacted Superfund site. *Journal of Exposure Science & Environmental Epidemiology*. 21:495-505.
19. Lin CG, **Schaider LA**, Brabander DJ, Woolf AD. 2010. Pediatric lead exposure from imported Indian spices and cultural powders. *Pediatrics*. 125:e828-e835.
20. Liu B, **Schaider LA**, Mason RP, Bank MS, Rabalais NN, Swarzenski PW, Shine JP, Hollweg T, Senn DB. 2009. Disturbance impacts on mercury dynamics in northern Gulf of Mexico sediments. *Journal of Geophysical Research–Biogeosciences*. 114:G00C07.
21. Zota AR, Willis R, Jim R, Norris GA, Shine JP, Duvall RM, **Schaider LA**, Spengler JD. 2009. Impact of mine waste on airborne respirable particulates in northeastern Oklahoma, United States. *Journal of the Air and Waste Management Association*. 59:1347-1357.
22. Hauri JF, **Schaider LA**. 2009. Remediation of acid mine drainage with sulfate reducing bacteria. *Journal of Chemical Education*. 86:216-218.
23. **Schaider LA**, Senn DB, Brabander DJ, McCarthy KM, Shine JP. 2007. Characterization of zinc, lead and cadmium in mine waste: Implications for transport, exposure and bioavailability. *Environmental Science and Technology*. 41:4164-4171.
24. **Schaider LA**, Parker DR, Sedlak DL. 2006. Uptake of EDTA-complexed Pb, Cd and Fe by solution- and sand-cultured *Brassica juncea*. *Plant and Soil*. 286:377-391.

## **SELECT INVITED PRESENTATIONS, PANELS, AND WEBINARS**

---

### **Presentations**

- **Schaider LA**. Environmental Chemistry at the Research-Advocacy Interface. Gordon Research Conference Environmental Sciences: Water. June 2020 (postponed until 2022 due to COVID-19).
- **Schaider LA**. PFAS and other contaminants of emerging concern in the waters of Cape Cod: Understanding exposures and addressing community concerns. Dartmouth College/Hitchcock Medical, Department of Epidemiology, invited seminar. September 2019.
- **Schaider LA**. Per- and polyfluoroalkyl substances (PFASs): Characteristics, challenges, and concerns. Keynote Presentation, New England Water Environment Association, PFAS and Biosolids Conference, Lowell, MA. October 2018.
- **Schaider LA**. PFASs and other contaminants of emerging concern in the waters of Cape Cod. Department of Civil and Environmental Engineering, Virginia Tech, Blacksburg, VA. October 2018.
- **Schaider LA**. Highly fluorinated chemicals (PFASs): Where do they come from and what are the concerns? Joint meeting of Society of American Military Engineers and Hudson Mohawk Professional Geologists Association, Latham, NY. March 2018.
- **Schaider LA**. Emerging contaminants in Cape Cod drinking water: Where are they coming from and how worried should we be? MWRA Water Supply Citizens Advisory Committee. December 2015.

### **Panels**

- Panelist: "Understanding PFAS Exposure" Panel. Part of Identifying Opportunities to Understand, Control, and Prevent Exposure to PFAS. Workshop held by the Environmental Health Matters Initiative, National Academy of Science, Engineering and Medicine, Washington, DC. September 2019.

## Webinars

- **LA Schaider** and P Brown. Working with communities to understand and address PFAS exposures. NIEHS Partnerships for Environmental Public Health. March 2020.
- Corder A and **L Schaider**. Guideline levels for PFOA and PFOS in drinking water. UCSF Program on Reproductive Health and the Environment Science Response Network. March 2019.
- **Schaider LA**. Septic systems as sources of pharmaceuticals, fluorinated chemicals, and other emerging contaminants in private wells on Cape Cod, Massachusetts. CDC Private Wells Community of Practice Webinar. March 2016.

## SELECTED CONFERENCE PRESENTATIONS

---

- **Schaider L**, McCann A, Hernandez A, Pickard H, Balcom P, Sunderland E. Legacy and alternative PFAS compounds in private wells on Cape Cod, Massachusetts, USA. Society of Environmental Toxicology and Chemistry North America 40th Annual Meeting, Toronto, November 2019.
- **Schaider L**, McCann A, Hernandez A, Pickard H, Balcom P, Sunderland E. Legacy and alternative PFAS compounds in private wells on Cape Cod, Massachusetts, USA. NIEHS Superfund Research Program Annual Meeting, Seattle, WA, November 2019.
- **Schaider LA**, Corder A, De La Rosa VY, Richter R, Rudel RA, and P Brown. Why do PFAS drinking water guidelines in the U.S. vary so widely? Oral presentation, Annual Meeting, International Society of Environmental Epidemiology, Utrecht, Netherlands. August 2019.
- **Schaider, LA**. PFAS exposures associated with consumer product-related behaviors and dietary habits related to food packaging. Oral presentation, Second National PFAS Conference, Boston, MA. June 2019.
- **Schaider L**, Costa A, Lohmann R, Becanova J, Gardiner C, Robuck A, Phillips P, Kolpin D, Furlong E, Alvarez A, and A Tokranov. Poster, PFASs in Cape Cod Bay Estuaries: Associations with conventional water quality parameters, land use, and organic wastewater compounds. NIEHS Superfund Research Program Annual Meeting, Sacramento, CA, November 2018.
- **Schaider LA**, Swetschinski LR, and RA Rudel. Exploring disparities in drinking water quality in U.S. public water supplies. Oral presentation, Joint Annual Meeting of the International Society of Exposure Science and the International Society for Environmental Epidemiology, Ottawa. August 2018.
- **Schaider LA**, Balan S, Blum A, Susmann H, Andrews D, Strynar M, Rudel R, Dodson R, and G Peaslee. Fluorinated compounds in U.S. fast food packaging and potential contributions to PFAS exposure. Oral presentation, International Society of Exposure Sciences Annual Meeting, Research Triangle Park, NC, Oct. 2017.
- **Schaider LA**, Swetschinski L, Campbell C, and R Rudel. Environmental justice and disparities in exposures to nitrate in drinking water. Oral presentation, International Society of Exposure Sciences Annual Meeting, Research Triangle Park, NC, October 2017.
- **Schaider LA**, Ackerman JA, and RA Rudel. Per- and polyfluoroalkyl substances and other organic wastewater compounds in private wells on Cape Cod, Massachusetts. Annual Meeting, North Atlantic Chapter, Society of Environmental Toxicology and Chemistry, Amherst, MA. June 2016.
- **Schaider LA**. Organic wastewater contaminants in public and private wells on Cape Cod, Massachusetts, and the role of septic systems. Oral presentation, 30<sup>th</sup> Annual International Conference on Soils, Sediments, Water and Energy. Association for Environmental Health & Sciences Foundation. Amherst, MA. October 2014.

- **Schaider LA**, Dong Z, Hatley E, Jim R, Lynch R, et al. A rural, community-based study of mercury exposure among consumers of local fish and the challenge of explaining fish consumption guidelines. Oral presentation, Society of Environmental Toxicology & Chemistry Annual Meeting, Nashville, TN. Nov. 2013.
- **Schaider LA**, Lynch RA, Dong Z, and JP Shine. Spatial and temporal variations in prey fish mercury concentrations in Grand Lake, Oklahoma, USA. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Long Beach, CA. Nov. 2012.
- **Schaider LA**, Rudel RA, Ackerman JM, Dunagan SC, and JG Brody. Pharmaceuticals, perfluorinated compounds and other organic wastewater compounds in private drinking water wells on Cape Cod, Massachusetts. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Boston, MA. Nov. 2011.
- **Schaider LA**, Backus A, Hatley E, Jim R, Lynch R, Manders G, et al. Mercury exposure from fish consumption in subsistence and recreational fishers in rural Oklahoma. 10th International Conf. on Mercury as a Global Pollutant, Halifax, NS. July 2011.
- **Schaider LA**, Rudel RA, Ackerman JM and JG Brody. Organic wastewater compounds in public and private drinking water wells impacted by septic systems on Cape Cod, Massachusetts. Oral presentation, Northeast Water Science Forum, New England Interstate Water Pollution Control Commission, Portland, ME. April 2011.
- **Schaider LA**, Backus AS, Hatley EL, Jim R, Lynch RA, Manders G, et al. Mercury exposure from fish consumption in subsistence fishers in rural Oklahoma. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Portland, OR. Nov. 2010.
- **Schaider LA**, Ackerman J, Dunagan S, Brody J, and R Rudel. Organic wastewater compounds in drinking water wells impacted by septic systems. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Portland, OR. November 2010.
- Estes ER, **Schaider LA**, Shine JP and DJ Brabander. Effect of transport and aging processes on metal speciation in iron oxyhydroxide aggregates, Tar Creek Superfund Site, Oklahoma. Poster presentation, American Geophysical Union Annual Fall Meeting, San Francisco, CA. December 2010.
- Backus A, **Schaider L**, Jim R and E Hatley. Launching a fish consumption and body burden study among Native Americans, Hispanics, and Micronesians. Oral presentation, American Public Health Association Annual Meeting, Denver, CO. November 2010.
- **Schaider LA**, Ackerman J, Dunagan S, Brody J and R Rudel. Organic wastewater compounds in drinking water wells impacted by septic systems. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Portland, OR. November 2010.
- Shine J, Brabander D, Hatley E, Jim R, McCarthy K, Senn D and **L Schaider**. Community exposures to heavy metals associated with mine wastes at the Tar Creek Superfund Site. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Portland, OR. November 2010.
- **Schaider LA**, Backus AS, Hatley EL, Jim R, Lynch RA, Manders G, Spengler JD and JP Shine. Mercury exposure from fish consumption in subsistence fishers in rural Oklahoma. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Portland, OR. November 2010.
- **Schaider LA**, Senn DB, Brabander DJ, McCarthy KD, and JP Shine. Metal fate and transport studies at the Tar Creek Superfund Site. Oral presentation, Geological Society of America North-Central and South-Central Sections Joint Meeting, Branson, MO. April 2010.
- Estes E, McCarthy KD, **Schaider LA**, Shine JP and DJ Brabander. Chemical and physical characterization of naturally precipitated hydrous ferric oxides at the Tar Creek Superfund Site, Oklahoma. Poster Presentation, Geological Society of America Annual Meeting, Portland, OR. October 2009.

- **Schaider LA**, Moran RE, Sample BE and JP Shine. Influence of metal contamination source and soil properties on metal bioaccumulation by plants. Oral presentation, Society of Environmental Toxicology and Chemistry, North Atlantic Chapter Annual Meeting, Durham, NH. June 2009.
- Lin CG, **Schaider LA**, George M, Brabander DJ and AD Woolf. Pediatric Lead Exposure from Imported Indian Spices and Religious Ceremonial Powders: A Case Series, a Market Basket Survey, and Blood Lead Level Modeling. Poster presentation, Pediatric Academic Societies Annual Meeting, Baltimore, MD. May 2009.
- Estes E, McCarthy KD, Brabander DJ, **Schaider LA** and JP Shine. Hydrous ferric oxide transport processes during flood events: Examples from the Tar Creek Superfund Site. Poster presentation, Geological Society of America, Northeastern Section Annual Meeting, Portland, ME. March 2009.
- Senn DB, Liu B, **Schaider LA**, Mason RP, Rice GE, Bank MS, Rabalais NN, Swarzenski P and JP Shine. Mercury sediment biogeochemistry in the northern Gulf of Mexico. Oral presentation, American Geophysical Union Annual Meeting, San Francisco, CA. December 2008.
- McCarthy KD, Brabander D, **Schaider L**, Argow B, Khoo M, Flynn N, and J Shine. Evaluating the risk of exposure to Pb, Zn, and Cd after a major flood at a mining-impacted area. Oral presentation, Geological Society of America Annual Meeting, Houston, TX. October 2008.
- Zota AR, Ettinger AS, **Schaider LA**, Schwartz J, Wright RO, and JD Spengler. Sources of metal exposure as predictors of body burden in infants living in a mining-impacted community. Oral presentation, 11th Annual Conference on Indoor Air Quality and Climate, Lyngby, Denmark. August 2008.
- Mason R, Bank M, Hollweg T, Rabalais N, **Schaider L**, Senn D, Shine J and P Swarzenski. The influence of hurricanes and other biogeochemical factors on net mercury methylation and mercury cycling in the Gulf of Mexico. Oral presentation, American Geophysical Union Annual Meeting, San Francisco, CA. December 2007.
- Liu B, **Schaider L**, Bank M, Mason R, Shine J, Rabalais N, and D Senn. Mercury sediment biogeochemistry in the northern Gulf of Mexico: Seasonal, spatial, and disturbance-induced variability. Oral presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Milwaukee, WI. November 2007.
- McCarthy KD, Brabander D, Khoo M, **Schaider L**, Senn D and J Shine. Characterization of zinc, lead, and cadmium in a mine waste impacted area: Implications for fate and transport. Poster, Geological Society of America, Annual Meeting, Denver, CO. October 2007.
- **Schaider LA**, Senn DB, Brabander DJ, McCarthy KD and JP Shine. Characterizing the lability and bioavailability of zinc, lead and cadmium in mine waste. Oral presentation, Society of Environmental Toxicology and Chemistry, North Atlantic Chapter Annual Meeting, Bristol, RI. June 2007.
- Khoo M, **Schaider L**, McCarthy K, Shine J, Senn D and D Brabander. Characterization of toxic metal transport processes downstream of the Tar Creek Superfund Site. Poster, Geological Society of America, Northeastern Section Annual Meeting, Durham, NH. March 2007.
- Zota AR, Ettinger A, **Schaider L**, Wright R, Brabander DJ and J Spengler. Children's exposure assessment study near a mining-related Superfund site. Oral presentation, American Public Health Association Annual Meeting, Boston, MA. November 2006.
- Senn D, Bank M, **Schaider L**, Shine J, Mason R, Hollweg T, Jay J and N Rabalais. Mercury biogeochemistry in Gulf of Mexico sediments (coastal Louisiana). Poster, Eighth International Conference on Mercury as a Global Pollutant, Madison, WI. August 2006.
- **Schaider LA**, Senn DB, Brabander DJ, Holton MW, McCarthy KD, Serdakowski MC and JP Shine. Mine waste piles as a source metal contamination at the Tar Creek Superfund Site. Oral Presentation, Geological Society of America, South-Central Section Annual Meeting, Norman, OK. March 2006.

- **Schaider LA**, Senn DB, Brabander DJ, Holton MW and JP Shine. Metal speciation and mobility in mine waste piles and surface waters in a mine-impacted area. Oral Presentation, Society of Environmental Toxicology and Chemistry Annual Meeting, Baltimore, MD. November 2005.
- **Schaider LA** and DL Sedlak. Uptake of metal-ligand complexes by Indian mustard: Implications for phytoremediation design. Oral presentation, American Chemical Society National Conference, New York City, NY. September 2003.
- **Schaider LA** and DL Sedlak. Uptake of metal-ligand complexes by Indian mustard (*Brassica juncea*): Implications for the free ion activity model. Poster, International Conference on the Biogeochemistry of Trace Elements, Guelph, ON. July 2001.
- **Schaider LA** and DL Sedlak. Metal speciation and plant uptake: a mechanistic approach. Poster, 4<sup>th</sup> International Symposium on Speciation of Elements in Biological, Environmental and Toxicological Sciences, Vancouver, BC. June 2000.
- **Schaider LA** and DL Sedlak. Transformations of metal-thiol complexes in natural waters. Oral presentation, American Chemical Society National Conference, New Orleans, LA. August 1999.

**DATE:** SEPTEMBER 30, 2020

**TO:** CITY CLERK KELLI BARNABY  
MAYOR BECKSTED  
CITY MANAGER CONARD

**FROM:** CITY COUNCILOR HUDA

**SUBJECT:** OCTOBER 5TH CITY COUNCIL MEETING AGENDA REQUEST (ZOOM MEETING)  
PLEASE PUT THIS UNDER THE NAMES LISTED ABOVE. THANK YOU

I MAKE A MOTION FOR A REPORT BACK FROM THE CITY MANAGER TO THE RESIDENTS AND CITY COUNCIL ON THE FOLLOWING:

- 1) THE FINAL FY20 BUDGET SURPLUS AMOUNTS BY BUDGET UNIT AS ESTIMATED TO THE MAYOR IN JUNE 2020  
(DUE TO THE INSIGHTFUL RESPONSE OF THE CITY MANAGER TO PUT A FREEZE ON SPENDING IMMEDIATELY, A FY20 SURPLUS WAS EXPECTED)  

	ESTIMATE @ 6/30/20	ACTUAL @ 9/30/20 (Unaudited)
POLICE	350,000	?
FIRE	250,000	?
MUNICIPAL	450,000	?
SCHOOL	200,000	?
  
- 2) ON THE FINANCIAL IMPACT TO THE CITY OF PORTSMOUTH RESULTING FROM THE STATE OF NH SUSPENDING ALL STATE AID GRANTS (SAGS)  
  
(AS REPORTED IN THE PORTSMOUTH HERALD ON 9/27 EXETER IS FACING SERIOUS SHORTFALLS IN MEETING DEBT SERVICE PAYMENTS ON THEIR JUST COMPLETED WASTEWATER TREATMENT PLANT).  
  
SINCE OUR WWTP IS SCHEDULED TO BE COMPLETED THIS YEAR, IS THE CITY OF PORTSMOUTH FACING THE SAME ISSUES?
  
- 3) UPDATE ON THE STATUS & SOLUTIONS BEING DISCUSSED PER THE EMERGENCY POLICE COMMISSION MEETING ON THE THE RE-OCCURANCE OF MOLD IN THE POLICE DEPT.