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Impact Statement

Dr. Whelton is a nationally and internationally influential environmental engineer whose research, leadership, and disaster response service have been impactful. His team's discoveries and efforts have reshaped how governments, utilities, and communities protect public health and recover from emergencies. His crisis response impacts have spanned over two decades, ranging from the Freedom Industries to East Palestine chemical spills, the Camp, Marshall, Maui, and Los Angeles wildfires, and the Red Hill fuel release in Hawai'i. He has provided trusted, independent scientific expertise to affected communities, utilities, government agencies, and elected leaders during high-stakes, rapidly evolving incidents. These have included some of the most destructive and deadliest incidents in modern U.S. history.

As a Professor at Purdue University, Dr. Whelton's research has uncovered unrecognized chemical exposures in infrastructure, the environment, and construction practices. These discoveries have directly shaped improved guidance and protocols adopted by the U.S. EPA, CDC, FEMA, NIOSH, and numerous state and local health agencies across North America. His team's evidence-based Concept of Operations Plan (CONOPS) for disaster response and recovery was adopted by utilities responding to the 2025 Los Angeles Fires and 2026 Spokane Complex Fires. His group's post-fire property testing and soil-safety guidance, issued in partnership with industry organizations, has become a national model.

Dr. Whelton is a sought-after advisor at the highest levels of government and science policy. He has briefed the White House Office of Science and Technology Policy, testified before state legislatures and Congressional committees, and served on numerous National Academies of Sciences, Engineering, and Medicine (NASEM) committees, most recently as a 2025-appointed member of the Committee for Clinical Follow-Up and Care for Those Impacted by the JP-5 Releases at Red Hill, and as invited keynote briefer to NASEM's Water Science and Technology Board on wildfires and municipal water systems. His expertise helped shape laws in California (AB 1642; AB 541), West Virginia (SB 592), Indiana (SB 312), legislation and bylaws in Indiana, Oregon, and Canada to improve health and safety. His team's work has informed pending Colorado legislation on fire-damaged property remediation. Governments of Canada, Norway, and the U.K. have sought his disaster recovery advice. Dr. Whelton's work has been covered by *The New York Times*, *Washington Post*, *Wall Street Journal*, *Associated Press*, *BBC*, and *PBS*, among others.

His scholarship spans over 100 peer-reviewed journal articles, dozens of technical reports, and more than 390 invited and contributed conference presentations. Recent honors include the Purdue University Faculty Engagement Award (2026), selection to brief the National Water Research Institute's Clarke Prize workshop (2026), the AEESP Lectureship at the American Waterworks Association Annual Conference (2025), the Palisades-Malibu Hero Award for extraordinary community service (2025), and three consecutive Purdue College of Engineering Outstanding Teacher recognitions (2023-2025).

As an educator and mentor, Dr. Whelton has advised dozens of graduate students, postdoctoral researchers, and undergraduates, many of whom have received national recognition. His impact extends through teaching, short courses, and public and industry supportive workshops, including a continuing webinar series translating discoveries from the fire disasters into practical, evidence-based guidance for households, utilities, and government officials. Collectively, his career reflects a consistent pattern: identifying overlooked risks, generate credible knowledge under pressure, and converting that knowledge into policy and practice to protect people and communities during an era of increasing environmental and technological risk.

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1. BIOGRAPHICAL INFORMATION

Education

Virginia Tech, Blacksburg, Virginia
B.S. Civil Engineering

August 1996–May 2000

Virginia Tech, Blacksburg, Virginia

M.S. Environmental Engineering thesis: M.S. *Thesis: Temperature Effects on Drinking Water Odor Perception*

August 2000–December 2001

Virginia Tech, Blacksburg, Virginia

Ph.D. Civil Engineering Dissertation: Advancing Potable Water Infrastructure through an Improved Understanding of Polymer Pipe Oxidation, Polymer–Contaminant Interactions, and Consumer Perception of Taste

August 2005–May 2009

Employment

Professor, July 2021 – Present, joint appointment in the Lyles School of Civil Engineering and School of Sustainability and Environmental Engineering, Purdue University, West Lafayette, Indiana

Founder and Lead, 2017 – Present, Center for Plumbing Safety, Purdue University

Director, 2021 – 2024, Healthy Plumbing Consortium, Purdue University

Associate Professor, August 2018 – August 2021, joint appointment in the Lyles School of Civil Engineering and Division of Environmental and Ecological Engineering, Purdue University, West Lafayette, Indiana

Assistant Professor, August 2014 – July 2018, joint appointment in the Lyles School of Civil Engineering and Division of Environmental and Ecological Engineering, Purdue University, West Lafayette, Indiana

Assistant Professor, Department of Civil Engineering, University of South Alabama, Mobile, Alabama, January 2011 – August 2014

Affiliated Faculty, Interdisciplinary Environmental Toxicology Program, University of South Alabama, Mobile, Alabama, January 2011 – August 2014

National Research Council Associate (Polymer Materials), Polymer Materials Group, Engineering Laboratory, National Institute for Standards and Technology, Gaithersburg, Maryland, December 2010 – December 2011

Postdoctoral Research Associate (Environmental Nanotechnology), Vikesland Research Group, Department of Civil and Environmental Engineering, Virginia Tech, Blacksburg, Virginia, May 2009 – December 2010

Virginia Tech, Department of Civil and Environmental Engineering, Graduate Research Assistant, Aberdeen Proving Ground, Maryland, August 2005 – May 2009

Draper Aden Associates, Inc., Project Engineer, 2007 – 2008

Whelton, LLC, Owner, Abingdon, Maryland, 2005 – 2007

U.S. Army Public Health Command, Directorate of Environmental Health Engineering, Project Manager/Civil Engineer, Aberdeen Proving Ground, Maryland, January 2003 – August 2005

Oak Ridge Institute for Science and Education (ORISE) Postgraduate Research Fellow, Directorate of Environmental Health Engineering, U.S. Army Public Health Command, Aberdeen Proving Ground, Maryland, January 2002 – December 2003

Graduate Research Assistant, Department of Civil and Environmental Engineering, Virginia Tech, Blacksburg, Virginia, August 2000 – December 2001

Undergraduate Research Assistant, Department of Civil and Environmental Engineering, Virginia Tech, Blacksburg, Virginia, August 1999 – May 2000

Licenses, registrations, and certificates

National Association of Sewer Service Companies (NASSCO) Cured-in-Place-Pipe (CIPP) Inspector Certification, 2017

Future Professoriate Graduate Certificate, Virginia Tech, Blacksburg, Virginia, 2009

Macromolecular Interfaces with Life Sciences Graduate Certificate, Virginia Tech, Blacksburg, Virginia, 2009

Engineer in Training Certification # 28325. Maryland, USA, 2003

Honors and awards

Faculty Engagement Award, Purdue University, 2026
Selected to brief the Water x Fire National Water Research Institute Clarke Prize Laureate workshop, 2026
Selected to be the AEESP Lecturer at the American Waterworks Association Annual Conference, 2025
Palisades-Malibu Hero Award, in recognition of extraordinary community service, Pali Strong, 2025
Selected to be a Member of the U.S. National Academies of Science, Engineering, and Medicine's Committee for Clinical Follow-Up and Care for Those Impacted by the JP-5 Releases at Red Hill Related Waste, 2025
Purdue University College of Engineering Outstanding Teacher Recognition, 2025
Purdue University College of Engineering Outstanding Teacher Recognition, 2024
Purdue University College of Engineering Outstanding Teacher Recognition, 2023
Mary Ann Zimmerman Innovation Award, Civil Engineering, Purdue University, 2023
Selected to serve on the Organizing Committee, U.S. National Academies of Science, Engineering, and Mathematics, Public Health Research and Surveillance Priorities from the East Palestine, Ohio Train Derailment: A Workshop, 2023.
Finalist, The Johns Hopkins University Press, Anthology on Water, 2021
Invited Participant U.S. National Academy of Engineering Frontiers of Engineering Symposium, joint Royal Academy of Engineering, Chinese Academy of Engineering, and NAE Global Grand Challenge Symposium, London, England, 2019
Early Career in Research Excellence Award, Purdue University, 2019
Named University Faculty Scholar to recognize outstanding mid-career faculty who are on an accelerated path for academic distinction, Purdue University, 2019
Selected for the U.S. National Academy of Engineering Frontiers of Engineering Symposium Invited Participant, Lincoln Labs, Lexington, Massachusetts, 2018
Roy E. and Myrna G. Wansik Research Leadership Award. Civil Engineering, Purdue University, 2017
Seeds of Excellence Award, Purdue University, 2017
Outstanding Engineering Graduate Student Mentor Award, Environmental and Ecological Engineering, Purdue University, 2017
Instruction Matters: Purdue Academic Course Transformation (IMPACT) Faculty Fellow, 2016
Excellence in Research Award, University of South Alabama, 2014
Distinguished Service Award, AEESP, 2013
Excellence in Civil Engineering Education (ExCEED) fellowship, American Society of Civil Engineers (ASCE), 2012
National Research Council (NRC) fellowship, National Research Council, 2010
Inaugural travel award to attend the biannual AEESP Conference in honor of the lives lost at Virginia Tech, Association of Environmental Engineering and Science Professors (AEESP) Foundation-Virginia Tech, 2009
Virginia Tech Graduate Research and Development Program Award, 2006
Integrative Graduate Education Research Traineeship (IGERT) Assistantship, NSF Program at Virginia Tech, 2005–2007
Outstanding Performance Award, U.S. Army Center for Health Promotion and Preventive Medicine, 2004
Oak Ridge Institute for Science and Education (ORISE) Postgraduate Fellowship, U.S. Army Center for Health Promotion and Preventive Medicine, 2002
Virginia Tech Graduate Student of the Month award, 2001
Edna D. Bailey Sussman Environmental Science and Engineering Foundation Fellowship, 2001

2. LEARNING AND MENTORING IMPACTS

University courses instructed

Sem/ Year	Course Title	Course Number	# Enrolled in Course
UNIVERSITY OF SOUTH ALABAMA			
S11	Fundamentals of Environmental Engineering	CE 579	11
S11	Environ Engineering Lab –Sect. 2	CE 374	14
S11	Environ. Engineering Lab –Sect. 1	CE 374	19
S11	Intro. to Environ. Engineering	CE 370	44
*F11	Field Analysis & Sampling Techniques	CE 490	2
*F11	Field Analysis & Sampling Techniques	CE 590	6
S12	Fundamentals of Environmental Engineering	CE 579	10
S12	Introduction to Environmental Engineering	CE 370	44
F12	Engineering Economics & Ethics	EG 231	52
*F12	Polymers Infrastructure & Environment	CE 590	9
S13	Fundamentals of Environmental Engineering	CE 579	9
S13	Environmental Engineering Lab –Sect. 2	CE 374	20
S13	Environmental Engineering Lab –Sect. 1	CE 374	15
S13	Introduction to Environmental Engineering	CE 370	33
*F13	Environmental Eng. Design: Physiochemical Processes	CE 590	4
S14	Polymers Infrastructure & Environmental	CE 590	7
S14	Fundamental Environmental Engineering	CE 579	6
S14	Environmental Engineering Lab	CE 370	24
S14	Introduction to Environmental Engineering	CE 370	24
PURDUE UNIVERSITY			
S15	Polymers Infrastructure & Environmental	CE 597	8
F15	Environmental & Ecological Engineering	EEE 250	52
*S16	Solid & Hazardous Waste Management	CE 597 / EEE 597	11
F16	Environmental & Ecological Engineering	EEE 250	48
*F16	Modeling Complexity	EEE 560	28
S17	Solid & Hazardous Waste Management	CE 597 / EEE 597	20
F17	Modeling Complexity	EEE 560	21
F17	Environmental & Ecological Engineering	EEE 250	57
S18	Solid & Hazardous Waste Management	CE 597 / EEE 597	17
F18	Environmental & Ecological Engineering	EEE 250	60
S19	Solid & Hazardous Waste Management	CE 597 / EEE 595	28
F19	Environmental & Ecological Engineering	EEE 250	65
SU20	Building Water Systems	EEE 495	14
F20	Seminar	EEE 690	33
F20	Managing Complex Env. & Public Health Issues	CE 597 / EEE 595	11
S21	Seminar	EEE 690	25
S21	Plastics	EEE 560	23
S21	Purdue Online: Building Water Essentials	CE / ABE / EEE	2
SU21	Plastics in Infrastructure & the Environment	CE 597	19 (+420 audit)
SU21	Building Water Systems	EEE 495	11
SU21	Plastics	EEE 560	2
F21	Disasters & Emergencies	CE 597	28
F22	Seminar	EEE 690	25
S22	Solid & Hazardous Waste Management	CE 597 / EEE 595	21
SU22	Plastics in Infrastructure & the Environment	CE 597	24
F22	Disasters & Emergencies	CE 597	25
S23	Solid & Hazardous Waste Management	CE 597 / EEE 595	29
S23	Plastics in Infrastructure & the Environment	CE 597	16
SU23	Plastics in Infrastructure & the Environment	CE 597	19
F23	Disasters & Emergencies	CE 597	45
S24	Solid & Hazardous Waste Management	EEE 595	31

SU24	Plastics in Infrastructure & the Environment	CE 597	21
F24	Disasters & Emergencies	CE 597	30
S25	Solid & Hazardous Waste Management	EEE 570	41
S25	Responding to Drought in Society	EEE 560	21
S25	Study Abroad: Water Infrastructure, Public Health, & Extreme Events - England	SA	19
SU25	Plastics in Infrastructure & the Environment	CCE 597	29
F25	Disasters & Emergencies	CCE 597	34
S26	Study Abroad: Water Infrastructure, Public Health, & Extreme Events – England	SA	19
S26	Solid & Hazardous Waste Management	EEE 570	38
SU26	Plastics in Infrastructure & the Environment	CCE 597	32
F26	Disasters & Emergencies	CCE 597	30
S27	Study Abroad: Water Infrastructure, Public Health, & Extreme Events – Spain	SA	TBD
S27	Solid & Hazardous Waste Management	EEE 570	38

Through an additional 35 Directed Independent Study courses Prof. Whelton has mentored several undergraduate students. These included topics on environmental chemistry, environmental management, analytical methods for environmental samples, olfactory analysis of water, building water plumbing investigations, waste characterization, and plastic manufacturing and characterization.

Through an additional 25 Directed Independent Study courses Prof. Whelton has mentored several graduate students. On topics such as assessing the toxicity of oil spill dispersants, DBP generation in building plumbing, data interpretation, stormwater sampling and analysis, trenchless technology emergence in developing countries, baby product contamination and cleaning after disasters, and home environmental testing post-disaster.

Graduate students advised and mentored

Advised at Purdue University

Kristofer Isaacson, PhD EEE (co – chair), Organic Contaminant Release from Plastic Drinking Water Pipes: Assessing Susceptibility to Thermal Degradation and Hydrocarbon Contamination

Maria Palmegiani, MS CE (chair), Development of tools to predict fixture water quality prediction for plumbing design and investigation decisions

Christian Ley, PhD EEE (chair), Evaluating the impacts of sustainable water use measures on drinking water microbiology and chemistry

Elizabeth Montagnino, MS CE (chair), Commercial building water quality: detecting chemical and microbial changes, their causes, and evaluating remedial actions, Purdue University

Karen Casteloes, MS CE (chair), Techniques and Technologies for Decontaminating Chemically Contaminated Premise Plumbing

Maryam Salehi, PhD CE (chair), Exploring Metal Deposition onto Plastic Water Infrastructure: The Nexus of Environmental Engineering, Material Science Frontiers

Kyungyeon Ra, MS EEE (chair), Characterizing Chemical Flux from Cured-in-Place-Pipe Installations

Xianzhen Li, MS CE (chair), The Interaction of Heavy Metals with Drinking Water Pipes: Accelerated Aging, Deposition and Release

Tianqi Wang, MS EEE (chair), Waste Materials and Management: Lessons from the Flint Water Crisis and Blast Furnace Slag Usage in Indiana

Xiangning Huang, PhD CE (chair), Towards a Better Understanding of Contaminant Fate in Plastic Plumbing and their Decontamination

Mahboobeh Teimouri, PhD CE (chair), Improving Worker Safety and Environmental Protection by Understanding Chemical Emissions from Plastic Composites During Manufacture and Use

Kyungyeon Ra, PhD CE (chair), Stagnation Impacts on Building Drinking Water Safety: The Pandemic and Microplastics

Yoorae Noh, PhD CE (chair), Protection of Public and Worker Safety by Understanding Hazardous Chemical Air and Exposure Risks during Plastic Cured-In-Place-Pipe Manufacture and Use

Caroline Jankowski, MS EEE (chair), Water Quality Implications of Contaminated Plumbing Systems: Softeners, Wildfires, and Hydrocarbons

Stephanie Heffner, MS EEE (co-chair), Water Quality Impacts Under Extreme Plumbing Stagnation Conditions

Rasul Diop, PhD EEE (co-chair), The Chemistry of Air-Cooled Blast Furnace Slag (ACBFS) Related to Environmental Exposure Associated with Reuse

Advised at the University of South Alabama

Matthew Tabor, MS CE, The Influence of Rehabilitated Stormwater Infrastructure on Water Quality and *D. magna* Toxicity: A Field and Laboratory Investigation
Markus Moore, MS CE, Trihalomethane Formation with Free Chlorine Disinfection Due to Organic Carbon Leaching from Polypropylene and Polyethylene Pipes
Keven Kelley, MS CE, The Impact of Cross-Linked Polyethylene (PEX) Pipe on Drinking Water Chemical and Odor Quality
Maryam Salehi, MS CE, Toxicity of A Promising Oil Spill Dispersant, Hyperbranched Polyethyleneimine, to *D. Magna*
Matt Connell, MS ETOX, Assimilable Organic Carbon Release, Chemical Migration, and Drinking Water Impacts of Multiple Brands of Plastic Pipes Available in the USA
Jeffrey Gill, MS CE, Biocide Induced Power Plant Cooling Water Infrastructure Degradation
LaKia McMillan, MS ETOX, Residential Tap Water Contamination, Public Perceptions, and Health Impacts Due to the 2014 Elk River Chemical Spill, West Virginia
Caroline Novy, Aquatic Toxicity and Chemical Fate for the 2014 Elk River Chemical Spill, West Virginia

Currently Advising Graduate Students

Paula Cohelo, PhD EEE (chair), Purdue University
Ramin Ansari, PhD CE (chair), Purdue University
Cristiane Grossi Ferrezzari, PhD EEE (chair), Purdue University
Daeyon Heo, PhD Nursing (member), Purdue University

Served Graduate Committees

Jianghui Liu, PhD CCE (member), Sources and Dynamics of Volatile Chemicals in Residential Settings: Impacts of Scented Consumer Product Use on Indoor Air, Purdue University
Yiming Liu, PhD EEE (member), Risk-Modified Life Cycle Assessment: A Framework for Unintentional Releases, With Application To Petroleum Products, Purdue University
Kyeongsuk Lee, PhD CCE (member), Toward AI-Informed Personalized Safety Training Using Multimodal Neuro-psychophysiological Responses, Purdue University
Sruthi Dasika, PhD EEE (member), Development of Low-Cost Colorimetric and Instrumental Methods for Monitoring Chlorination and Turbidity In Treated Drinking Water, Purdue University
Aliya Ehde, PhD EEE (member), The Microbial and Chemical Dynamics of Drinking Water Quality Within Building Plumbing Purdue University
Ryan Julien, PhD ABE, Impacts of green building practices and water conservation on water age and resulting water quality, especially regarding opportunistic premise plumbing pathogens (OPPPs), Michigan State University
Li Xia, PhD HHS (member), Emerging Exposure Issues In Inhalation Toxicology, Purdue University
Mohammad Nuruddin, PhD MSE, Characterization of Transport and Release of Small Molecules from Infrastructure Materials, Purdue University
Holly Halfich, MS EEE (member), Chloramination of Polyamide-Based Reverse Osmosis Membranes in The Presence of Halides, Purdue University
Kun Huang, PhD CE, Organic nitrogen reactivity with free chlorine: effects on disinfection by-product formation and polyamide membrane stability, Purdue University
Utami Irawati, PhD CE, Revisiting the decay of monochloramine, Purdue University
Gaopin Cao, MS CE, Disinfectant Byproduct Formation Due to Chemical Leaching from Plastic Drinking Water Pipe, Purdue University
Ming Chen, PhD CE, Anion Exchange on Cross-Linked Cationic Surfactant Micelles Across Ultrafiltration Membranes, Purdue University
Rachel Rodriguez, BS BIOL (honor thesis), Toxicity of Corexit and Hyperbranched Polyethyleneimine Polymer to Oyster Spat, University of South Alabama
Ugochukwu Obiako, MS ETOX, Toxicity of Stormwater Runoff from Roadways in South Alabama, University of South Alabama
Michael Greifenstein, MS MPH, Effects of Temperature & Storage Time on Military Packaged Water in Afghanistan-Polyethylene Terephthalate Water Bottles, Uniformed Services of the Health Sciences University

Advised Non-thesis and Distance MS students

Jesse Hamm, MS EEE (chair), Purdue University

Katharine Hughes, MS EEE (chair), Purdue University
 Trenton Jackson, MS CE (chair), Purdue University
 Tolu Odimayomi, MS EEE (chair), Purdue University
 Christian Ley, MS EEE (chair), Purdue University
 A. Rasul Diop, MS EEE (member), Purdue University
 Sai Teja Reddy Yadatha MS EEE (chair), Purdue University
 Luke Beier, MS EEE (member), Purdue University
 John Albin, MS EEE (member), Purdue University
 Joseph Maxwell, MS CE (member), Purdue University
 Scott Jaimie, MS CE (member), Purdue University
 Mark Kosak, MS CE (member), Purdue University
 Deepika Sree Solamuthu Krishnakumar, MS CE (chair), Purdue University
 Michael Jay Guymon, MS CE (co – chair), Purdue University
 Michael Thomas Perkins, MS CE (member), Purdue University
 Sharanya Mathur, MS CE (co – chair), Purdue University
 Monica Maria Aponte – Alequin MS CE (member), Purdue University
 Colten Golden, MS CE (member), Purdue University
 Craig Petgrave, MS CE (member), Purdue University
 Christiana Rose, MS CE (chair), Purdue University
 Adedolapo Wasiu Adesope, MS CE (member), Purdue University
 Anna Maria Torres, MS CE (chair), Purdue University
 Gracie Fitzgerald, MS EEE (chair), Purdue University
 Sayali Pawar, MS CE (member), Purdue University
 Pritee Pahari, MS CE (chair), Purdue University
 Paula Coelho, MS EEE (chair), Purdue University
 Shantanu Sonawane, MS EEE (chair), Purdue University

Examiner / Opponent

Anastasia Doronina, PhD CE, University of Sheffield, Sheffield, United Kingdom, 2021
 Charuka Saamantha Meegoda, PhD CE, Norwegian University of Science and Technology – NTNU, Norway, 2023

Postdoctoral and visiting scholars mentored

Keira Murphy, Summer Undergraduate Researcher, Topic: SVOC fate in biofilm coated pipe systems
 Dwayne Ballance, Summer Undergraduate Researcher, Topic: Community recovery challenges after a wildfire
 Kaitlyn Wayne, Summer Undergraduate Researcher, Topic: Property environmental testing practices – outdoors and indoors, knowledge gaps, and recommendations following wildfire and chemical fire incidents
 Samuel Spears, Summer Undergraduate Researcher, Prior position Purdue University, Topic: Epoxy lining of drinking water pipes.
 Stefanie Surdyka, Summer Undergraduate Researcher, Prior position Purdue University, Topic: Chemical fate and exposures after the Norfolk Southern Chemical Spill and Chemical Fires.
 Madeline Frasure – Lauth, Summer Undergraduate Researcher, Prior position Purdue University, Topic: Sorption of chemicals spilled in Ohio into sorbent pads placed in creeks.
 Hannah Tharrington, Summer Undergraduate Researcher, Prior position Purdue University, Topic: Biofilm growth on microplastics found in plumbing.
 Catie Fleming, Summer Undergraduate Researcher, Prior position Purdue University, Topic: Heavy metal leaching during a 4 month plumbing flushing and stagnation study
 Halley Le, Summer Undergraduate Researcher, Prior position Bennington College, Topic: BTEX Contamination of Home Plastic Plumbing Components and their Decontamination
 Sydney Butler, Summer Undergraduate Researcher, Prior position Howard University, Topic: Chemical composition and byproduct production of styrene and nonstyrene CIPP resins
 Caitlin Proctor, PhD (Biology), Lilian Gilbreth Postdoctoral Fellow, Prior position Eawag Switzerland, Topic: Plastics, Microbiology, and Drinking Water
 Tolu Odimayomi, Research Engineer, Purdue University, Topic: Building Water Systems and Disasters
 Miriam Tariq, Summer Undergraduate Researcher, Prior position Louisiana State University, Topic: Disinfectant Decay in Plastic Piping Systems
 Maryam Salehi, PhD, Postdoctoral Research Associate, Prior position Purdue University, Topic: Drinking Water Plumbing Safety
 Catherine Yip, Summer Undergraduate Researcher, Prior position US Naval Academy, Topic: Removal of Surfactants from Decontamination Wastewater

Trevor Graham, Summer Undergraduate Researcher, Prior position US Naval Academy, Topic: Removal of Surfactants from Decontamination Wastewater

Raphael Rivadávia Mendes Oliveira, Summer Undergraduate Researcher, Prior position Federal University of Viçosa, Brazil, Topic: DBP Production in Building Plumbing Systems

Stephane Andry Reis Cerrato, Summer Undergraduate Researcher, Prior position Federal University of Viçosa, Brazil, Topic: Chemical Spill Response Countermeasures for Community Resiliency

Henriques Rodrigues de Melo, Summer Undergraduate Researcher, Prior position University of Sorocaba, Brazil, Topic: Plumbing System Water Quality Monitoring and Control

Xiangning Huang, Research Engineer, Prior position Purdue University Health Sciences Program, Topic: Fate of Petroleum Contaminants in Water Infrastructure Systems

Julia Eddlebroack, Summer Undergraduate Researcher, Prior position Findlay University, Topic: Toxicity of Corexit 9500 to oyster spat; Prof. Boettcher (BIOL) was main advisor.

Sabrina Carr, Summer Undergraduate Researcher, Prior position Syracuse University, Topic: Impact of Corexit 9500 on *Daphnia magna*: A Toxicological Assessment

Derrick Newman, Research Scientist, University of South Alabama, Prior position University of South Alabama, Topic: Water Quality Impacts of Cured in Place Pipe Stormwater Culvert Repair Material

Maryam Salehi, PhD (Textile Engineering), Visiting Scholar University of South Alabama, Prior position Amirkabir University of Technology, Topic: Water Interactions with FRP and PEUU Materials

Wade Holley, PhD (Chemistry), Postdoctoral Research Associate University of South Alabama, Prior position Oak Ridge National Laboratory, Topic: Polymer Degradation in Nuclear Power Station Cooling Water Facilities

Undergraduate student researchers mentored (not visiting)

Purdue University

Ella Kornick, BS Chemical Engineering

Kaitlyn Wayne, BS Environmental and Ecological Engineering

Dewayne Balance, BS Chemistry

Yao Chen, BS Statistics

Miranda Stickel, BS Environmental and Ecological Engineering

Christopher Dunlap, BS Environmental and Ecological Engineering

Marcelo Marcos, BS Environmental and Ecological Engineering

Payten Whitfield, BS Environmental and Ecological Engineering

Louden Feltner, BS Environmental and Ecological Engineering

Hannah Tharrington, BS Chemistry

Stephanie Heffner, BS Environmental and Ecological Engineering

Samuel Spears, BS Environmental and Ecological Engineering

Stefanie Surdyka, BS Chemical Engineering

Catie Flemming, BS Environmental and Ecological Engineering

Madeline Frasure-Lauth, BS Environmental and Ecological Engineering

Savannah Kusinerz, BS Environmental and Ecological Engineering

Katherine Del Real, BS Environmental and Ecological Engineering

Lauren Gustafson, BS Civil Engineering

Myles Cook, BS Environmental and Ecological Engineering

Hanna Fulford, BS Environmental and Ecological Engineering

Ryan Day, BS Civil Engineering

Danielle Angert, BS Environmental and Ecological Engineering

Nafissa Maiga, BS Environmental and Ecological Engineering

Andrew Golden, BS Civil Engineering

Ethan Edwards, BS Civil Engineering

Yifei Bi, BS Environmental and Ecological Engineering

Emerson Ringger, BS Environmental and Ecological Engineering

Erica Wang, BS Environmental and Ecological Engineering

Emily Conkling, BS Environmental and Ecological Engineering

Jason Hawes, BS Environmental and Ecological Engineering

Devin Kelly, BS Environmental and Ecological Engineering

Lila Gillespie, BS Environmental and Ecological Engineering

Lena Abu Ali, BS Environmental and Ecological Engineering

University of South Alabama

Eddy Colmenarez, BS Chemical Engineering
 Jesus Estaba, BS Mechanical Engineering
 Mark Crawford, BS Civil Engineering
 Elisa Prado, BS Civil Engineering
 William Radcliffe, BS Civil Engineering
 Luis Navarro, BA Business
 Matt Tabor, BS Civil Engineering
 Tom Nguyen, BS Civil Engineering
 Kevin Waddell, BS Civil Engineering

Additional mentor activities and their awards

Faculty advisor for the Purdue University student joint chapter of the Indiana American Water Works Association (AWWA) and Water Environment Association (WEA). 2018–2021

Mentored undergraduate students where 11 have lead and co-authored 13 peer-review journal papers and reports.

Mentored undergraduate students where 25 have delivered conference and symposium presentations.

Awards and Honors to Postdoctoral Associates and Students Working with Prof. Whelton

2024 Outstanding Paper Award, Royal Society of Chemistry, *Environmental Science* journal series, Environmental and private property contamination following the Norfolk Southern chemical spill and chemical fires in Ohio, Paula Coelho et al.

Raeftelis Leadership Scholarship Award through AWWA, 2024, Sam Spears

Purdue University Graduate Student Engagement Award, 2024, Paula Coelho

2023 Outstanding Paper Award, Royal Society of Chemistry, *Environmental Science* journal series, Two weeks after the 2023 Maui wildfires: drinking water experiences and needs, Andrew Whelton, Paula Coelho et al.

Besozzi Youth Delegate, AWWA Indiana Section, 2023, Paula Coelho

Purdue Summer Undergraduate Research Program People's Choice Presentation Award, 2023, Halley Le

Besozzi Youth Delegate, AWWA Indiana Section, 2022, Caroline Jankowski

Fulbright Scholar, 2021, BSCE, Ethan Edwards

2nd Place AWWA Beyond the Meter Session, Lightning Presentation Award, 2021, Maria Palmegiani

3rd Place AWWA Beyond the Meter Session, Lightning Presentation Award, 2021, Ryan Day

Purdue University College of Engineering Outstanding Graduate Student Research Award, 2021, Christian Ley

AWWA Water Quality Division Best Paper Award, 2021, Dr. Caitlin Proctor [Lilian Gilbreth Postdoctoral Associate, *not student. Proctor awarded College level postdoc and worked with Whelton*]

Summer Undergraduate Research Fellowship Top 6 Presentation Award, 2020, Purdue University, Danielle Angert

3rd Place Best Presentation Award, Undergraduate Symposium Pitch, 2020, Purdue University, Ethan Edwards

1st Place Best Poster Presentation Award, AWWA Indiana Section, 2019, Erica Wang

Besozzi Youth Delegate, AWWA Indiana Section, 2019, Erica Wang

1st Place (tie) AWWA Indiana Section Best Poster Presentation Award, 2018, Kyungyeon Ra

1st Place (tie) AWWA Indiana Section Best Poster Presentation Award, 2018, Mabi Teimouri

Society of Risk Analysis Travel Award, 2017, Mabi Teimouri

Society of Risk Analysis Merit Research Award, 2017, Mabi Teimouri

1st Place AEESP Outstanding Masters Thesis Award, 2017, Karen Casteloes

AWWA Water Science and Research Division Best Paper Award, 2017, Matthew Connell

Black and Veatch / AWWA World of Difference Award, 2016, Jason Hawes

Top 10 poster presenter at Purdue summer Undergraduate Research Symposium, 2016, Emily Conkling

1st Place poster presentation at the Purdue Ecological Sciences and Engineering Research Symposium, 2016, Jessica Yapturi

American Society of Civil Engineers (ASCE) Top 10 Faces/Students of the Year, 2014, Rachel Cooley

Alabama / Mississippi Section AWWA Scholarship, 2013, Matthew Connell

Alabama / Mississippi Section AWWA Scholarship, 2013, Markus Moore

3rd Place oral presentation award, Alabama Water Resources Conference, 2012, Matthew Tabor

Prof. Whelton involved students in developing and conducting industry workshop at the 2021 AWWA ACE conference (Graduate students: Maryam Salehi, Mabi Teimouri, Kyungyeon Ra) and public education workshops in response to the Camp Fire in Paradise, California (Graduate students: Yoora Noh, Tolu Odimeyomi, Christian Ley; Undergraduate student: Erica Wang).

Prof. Whelton involved students in developing and conducting industry training session at the 2024 AWWA ACE conference in Anaheim, California (Graduate students: Paula Coelho, Shantanu Sonowane; Undergraduate students: Nikki Zavodny, Samuel Spears).

Online courses taught

Building Water Essentials Certificate Program. Co – developed with Professor Caitlin Proctor (Purdue ABE/EEE). Deployed Spring 2021, ongoing, rolling admission. 10 hour online, self – paced course for public health officials. This course provides a baseline understanding of how building water systems are designed, how they operate and when problems arise, and how those problems can be resolved – information that is not readily available for public health officials (and others dealing with the issues) to access in a single package anywhere else. Topics include system components, codes, standards, water quality, flow, and the potential health risks, including water quality investigations and remediation. \$495/person.

Purdue University EdX Platform. Plastics in Infrastructure and the Environment, CE 597. Purdue Affordable masters program. Summer 2021, Summer 2022. Students gain knowledge pertinent in the polymer science and engineering field as well as knowledge applicable to the disciplines of chemistry, biology, environmental science, toxicology, material science, and public health.

Short courses and workshops taught, events directed, public meeting service

Chaired, Co–chaired short courses and workshops

University Short–Course: Title: *Polymer Science Basics and Applications in Environmental and Infrastructure Engineering*. Mobile, Alabama. July 25, 2013, 2.5 hour event. Course held at University of South Alabama. Enrollment: 7 participants. Prof. Whelton was the lead organizer and instructor, graduate student M. Salehi helped instruct also.

Workshop: *Pipeline Repair and Replacement Technologies: Material Basics, Interactive Technology Selection, and Field Experiences*. Chicago, Illinois. October 2013, full–day event. Workshop held at the Water Environment Federation Annual Technical Exposition and Conference (WEFTEC) Conference and Exposition. 47 scientists, engineers, facility operators, and managers from around the globe; 59% of the attendees represented water utilities, 33% represented consulting firms, and the remaining attendees worked in research and development. Prof. Whelton was the Chair and Organizer and Chair, Presentations by Prof. Whelton along with industry professionals Prof. Whelton sought out from consulting, technology companies, and rehabilitation companies.

Workshop: *Learn how Water Main Rehabilitation Technologies Can Help Solve Your Infrastructure Challenges: Materials Education, Utility Lessons Learned, and Interactive Technology Demonstrations*. Boston, Massachusetts. June 8, 2014, full day event. Workshop held at the AWWA annual conference and exposition. Enrollment 40 participants. Prof. Whelton was the Chair and Organizer, Presentations by Prof. Whelton along with industry professionals Prof. Whelton sought out from consulting, technology companies, and rehabilitation companies.

Workshop: *Water Quality Impacts of Plumbing Design, Operation, and Maintenance*, New Orleans, Louisiana. October 24, 2014, 2 hour event. Workshop held at US Green Building Council (USGBC) GreenBuild Conference. Enrollment: 45 participants. Prof. Whelton was a co–organizer and co–chair with architect Rebecca Bryant, Watershed LLC (NSF collaborator), Presentations by Prof. Whelton and Rebecca Bryant.

Workshop: *Water Main Rehabilitation: Materials, Utility Lessons, and Interactive Technology Demonstrations*, Chicago, Illinois. June 24, 2016, full day event. Workshop held at AWWA annual conference and exposition. Enrollment: 55 participants. Prof. Whelton was the Chair and Organizer, Presentations by Prof. Whelton along with industry professionals Prof. Whelton sought out from consulting, technology companies, and rehabilitation companies.

Workshop: *Northern/Central Indiana Local Emergency Planning Committee (LEPC) and Water Utility Surface Water Supply Contamination Response*, West Lafayette, Indiana. July 25, 2016, full day event. Enrollment: 15 participants. Prof. Whelton served as co–Organizer/co–Chair/co–Instructor Indiana Water Utility Action Network (INWARN) and Prof. Linda Lee, Purdue University.

Workshop: *Southern Indiana Local Emergency Planning Committee (LEPC) and Water Utility Surface Water Supply Contamination Response*, Bloomington, Indiana. December 15, 2016, full day event. Enrollment: 28 participants. Prof. Whelton served as co–Organizer/co–Chair/co–Instructor with Indiana Water Utility Action Network (INWARN) and Prof. Linda Lee, Purdue University.

Workshop: *Plumbing Safety*, West Lafayette, Indiana. August 22–24, 2017, full-day events. Enrollment: 50 participants. Prof. Whelton served as the co-chair and primary organizer with Prof. Erin Dreelein at Michigan State University. This workshop was sponsored by the USEPA grant focused on plumbing safety and will involve local, county, state health agencies, technology and device manufacturing corporations, water, infrastructure, and public health trade associations, water utilities, academics from domestic and international institutions, building owners and designers.

Workshop/Public Demonstrations: *Plumbing Safety*, Paradise, California. July 27, 2019, 2 hour event. Participants: Estimated 150. Prof. Whelton served as the primary organizer and this was a collaboration with a local community-based organization (Camp Fire Zone Project), Butte College faculty and staff (Prof. Michael Loedwyck, Prof. Kristin Millenvich, Julie Jenks), Chico State University faculty (Prof. Jackson Webster), UC Berkeley faculty (Prof. Charlotte Smith), Charlotte Smith & Associates, LLC (Jim Smith), and Purdue University postdoc and undergraduate and graduate students. This event was sponsored by the Paradise Rotary Foundation and involved public demonstrations and engagement about plumbing safety with the public and media.

Workshop: *Sewer Vapor Intrusion and Sewer Repairs*, West Lafayette, Indiana. March 16, 2020, 3.5 hour event. Online enrollment: 10 participants. Prof. Whelton and Prof. Kelly Pennell (University of Kentucky) served as chairs and primary organizers of this government agency only meeting. Agencies represented included NIOSH, California Department of Health (CDPH), USEPA Region 5, Indiana Department of Environmental Management (IDEM), and Pennsylvania Department of Health (PADOH).

Workshop: *Wildfire and Water Systems*, Oakland, California. July 14, 2022, 7 hour event. 15 participants. Prof. Whelton and Susan Teefy (East Bay Municipal Utility District, EBMUD) served as organizers of this utility only meeting. Water systems represented EBMUD (CA), City of Napa (CA), Los Angeles Water and Power (CA), Contra Costa Water District (CA), Portland Water Bureau (OR), Medford Water Commission (OR), City of Louisville (CO), Town of Superior (CO).

Workshop/Interactive Session: *Wildfires are Here: Learn What Utilities Should Expect and Should Do to Respond and Recover*, Los Angeles, California. June 10, 2024, 3 hour event. Prof. Whelton as the organizer of this national water training event. Water systems convened to help share lessons learned and field experiences represent Paradise (CA), City of Louisville (CO), Maui County (HI) as well as the California Department of Public Health and graduate students at Purdue University.

[SUBMITTED] Workshop/Interactive Session: *Fire, Water, and Resilience: Protecting Drinking Water Systems Before, During, and After Wildfires and Structure Fires*, San Diego, California. June 2027, 3 hour event. Prof. Whelton as the organizer of this national water training event. Water systems and researchers convened to help share lessons learned and field experiences represent Paradise (CA), City of Louisville (CO), Maui County (HI), City of Napa (CA), City of Spokane (WA), LADWP (CA), Pasadena Water and Power (CA), City of Santa Rosa (CA), Fire Science Research Institute (FSRI), as well as the California Department of Public Health and graduate students at Purdue University.

Invited workshop instruction

Drinking Water Sensory Analysis. Short Hills Water Treatment Plant. Short Hills, New Jersey. 2001.

Flavor Profile Analysis. Fairfax County Water Authority. Fairfax, Virginia. 2001.

New Sensory Methods for Drinking Water Monitoring. Indiana–American Water Company, Inc. Gary, Indiana. 2001.

Water Sensory Analysis. Blacksburg–Christiansburg–VPI Water Authority. Blacksburg, Virginia. 2001.

Beyond Threshold Odor Number (TON). AWWA Annual Water Quality Technology Conference. Nashville, Tennessee. November 2001.

Water Vulnerability. US Army Water Vulnerability Workshop. Aberdeen Proving Ground, Maryland. March 2002.

New Sensory Analyses Methods. Joint Virginia AWWA and Water Environment Association Conference Workshop. Virginia Beach, Virginia. September 2002.

Methods for Improved Taste–and–Odor Monitoring. Seminar for US Forces Korea, September 2002. Camp Casey, South Korea. *Water System Security*. US Army Water Issues Workshop. Albuquerque, New Mexico. 2002.

US Army Water System Vulnerability Assessments. US Army Water Issues Workshop. Albuquerque, New Mexico. June 2003.

Training on How to Conduct Military Water Security Assessments. Water System Vulnerability Assessor Training Workshop. August 2003. Fort Lewis, Washington.

Attribute Rating, Two-out-of-Five, and Distribution Rating Tests for Analyzing Water Quality. Annual AWWA Water Quality Technology Conference. Philadelphia, Pennsylvania. November 2003.

Military Water Emergency Response. US Army Water Supply Workshop. Aberdeen Proving Ground, Maryland. December 2003.

Protecting Field Drinking Water from Attack: Assessing Vulnerability and Preparedness. Iraq Redeployment Occ. Health and Safety Workshop. Aberdeen Proving Ground, Maryland. January 2004.

Methods for Improving Water Security and Hardening Battlefield Drinking Water Systems. Seminar for Military Water Security in Support of Operation Iraqi Freedom. San Antonio, Texas. March 2004.

Conducting Water System Security Assessments and an Emergency Response. US Military Water System Security Workshop. Landstuhl, Germany. April 2004.

Public Works Security Tabletop Exercise. Hunter Army Airfield, Georgia. November 2004.

Water Vulnerability Assessments for Deployed Units. Seminar for Water Security Training for Redeploying Soldiers. Walter Reed Army Medical Center, Virginia. November 2004.

Public Works Security Tabletop Exercise. Fort Stewart, Georgia. December 2004.

Garrison Command Security Tabletop Exercise. Fort Stewart, Georgia. December 2004.

Taste-and-Odor: Sensory Decision Tree and Experiences. AWWA Annual Conference and Exposition. San Francisco, California. June 2005.

Sensory Analysis of Water: Controlling Geosmin, 2-Methylisoborneol, and Other Odorants. 7th IWA Conference for Off-Flavours in the Aquatic Environment. Cornwall, Ontario, Canada. October 2005.

Polymer Engineering and Oxidation: Potable Water Infrastructure Sustainability. Training Workshop for Summer Undergraduate and Graduate Researchers. Virginia Tech. Blacksburg, Virginia. May 2008.

Events Created, Emceed and Directed

[Journalism, Science, and Policy: Communicating Risk and Relevance.](#) Academics, politicians, scientists, members of the public and journalists convened February 11, 2021 to attend a virtual panel. The discussion centered on water quality and the symbiosis of scientific research and journalism. Professor Andrew Whelton and Professor Caitlin Proctor hosted and moderated the discussion between three prominent science writers. The panelists included *ProPublica* reporter and co – founder of the Mountain State Spotlight Ken Ward Jr, Pulitzer prize winning writer Deborah Blum, and *New York Times* bestselling author Seth Siegel. All three writers have a long history of working with scientists and academics to relay research to wide audiences, work all three believe is becoming increasingly essential.

[Wildfire, Water Systems & Public Health: Lessons from Recent Western Wildfires.](#) September 7, 2022, 1.5 hr event. Open to the Public. Prof. Whelton served as the organizer. Oregon Health Authority (Cordelia Schimpf), New Mexico Department of Environment (Joe Martinez), and Purdue share lessons learned from wildfires and water systems by virtual event. 500+ people attended. Recorded video is [here](#).

[Lessons Learned from the East Palestine, Ohio Disaster.](#) October 6, 2024, 2 hr event. Open to the Public. Prof. Whelton served as the organizer and moderator. The event featured four research teams that responded to the 2023 Norfolk Southern Railway chemical disaster and their discoveries. The final portion of the webinar was a panel discussion to explore the discoveries, policy, and practice recommendations. The panelists were Prof. Frank Loeffler (University of Tennessee Knoxville), CEO Dora Taggart (Microbial Insights, Inc.), Prof. Clayton Wukich (Cleveland State University), Prof. Lauryn Spearing (Tufts University), Prof. Nusrat Jung (Purdue University), and Ms. Paula Coelho (Purdue University). Recorded video is [here](#).

[Scientific Advice During Emergencies: Leveraging Research for Decision Support.](#) February 15, 2025. 1 hr event. American Association for the Advancement of Science annual conference. Boston, MA. The event featured four guests (Prof. Kelsey Peiper, Northeastern University; Drew Story, MIT Policy Lab, Prof. Lauryn Spearing, Tufts University, and Andrew Whelton, Purdue University) and explored firsthand perspectives from people who have successfully responded to and supported communities following noteworthy emergencies and disasters and have contributed to the development of responses and public policies at local, state, and federal levels.

[The L.A. Pools Study: What was in the Water After the January 2025 Wildfires?](#) August 18, 2025. 1 hr event. Open to the public. Prof. Whelton served as the co-organizer and moderator. The event features Purdue University Prof. Caitlin Proctor and her pool study with Cal Poly Pomona Prof. Monica Palomo, Cal Poly San Luis Obispo (formerly USC) Prof. Kristofer Isaacson, and UCLA Prof. Sanjay Mohanty.

[Soil Safety After the L.A. Wildfires, Debris Removal, and More: What have we learned so far?](#) September 13, 2025. 1 hr event. Open to the public. Prof. Whelton served as the organizer and moderator. The event

features Purdue University discoveries about past wildfire cleanups, soil safety, and lessons from a panel of experts. The panel featured five guests: Marc Mattox, P.E., Town Engineer from the Town of Paradise, California; Cameron Folkes, P.E., City Engineer from the City of Louisville, Colorado; Eric Bollens, Chief Technology Officer of LightBox and a resident of Palisades, California; Jack Webster, P.E., Ph.D., Professor of Civil and Environmental Engineering from Chico State University, California; and David Berantou, Research Associate from the University of California Agricultural and Natural Resources, California.

[The L.A. Wildfires REBUILD Survey: Overview, household experiences, needs, and perceptions.](#) September 20, 2025. 1 hr event. Open to the public. Prof. Whelton served as the organizer and moderator. The event features a Purdue University led team of discoveries about a household survey conducted in response to the 2025 Los Angeles area wildfires. A panel the featured five guests: Nicole Macalla, Ph.D., Director of Data Science and Educational Outreach, Eaton Fire Residents United; Reza Akef, Executive Board Member of Pali Strong, Principal of Metro Capital Builders, Inc.; Cristiane Grossi Ferrarezzi, PhD student in the School of Sustainability Eng. and Environmental Eng., Purdue University; and Joseph Toland, PhD student in the Department of Civil and Environmental Eng., Tufts University.

[Physical and Mental Health Impacts and Resources: L.A. Wildfires.](#) October 20, 2025. 1 hr event. Open to the public. Prof. Whelton served as the organizer and moderator. The event features a Purdue University led team of discoveries about a household survey conducted in response to the 2025 Los Angeles area wildfires. A panel the featured Jack Hermann, Senior Director of the American Red Cross Clinical Care Program and Melissa Brymer, Director of Terrorism and Disaster Programs at the UCLA-Duke National Center for Childhood Trauma Stress; Cristiane Grossi Ferrarezzi, PhD student in the School of Sustainability Eng. and Environmental Eng., Purdue University.

[After the Fires: Practical, Science-based Steps for Recovery.](#) August 17, 2026. 1 hr event. Open to the public. Prof. Whelton serves as the organizer and moderator. The event features newly released evidence-based guidance for wildfire recovery. Additional actionable guidance will be shared about debris removal, soil restoration, building environmental testing, private wells, building plumbing, agricultural water systems, and public drinking water systems. This session is designed for government officials in the U.S. and abroad, environmental and remediation consultants, water utility and public health professionals, and property owners seeking practical, science-backed direction for post-fire recovery. A panel includes Todd Thalhamer, PE, Hammer Consulting Svcs; Kevin Philips, CPA, Paradise Irrigation District; Eric Bollens, LightBox; Kevin Morley, Ph.D., AWWA.

Formal Public Meetings Post Disaster

Maui Wildfire Disaster Community Meeting on behalf of Maui County, Kula Lodge, Kula, Hawai'i. August 2023.

Camp Fire Disaster Community Meeting on behalf of the Paradise Irrigation District, Paradise Community Church, Paradise, California. March 2019.

3. PUBLICATIONS, PRESENTATIONS, RESEARCH GRANTS AND CONTRACTS

Refereed journal papers

Among the authors undergraduate students are indicated with a superscript 'UG', graduate students are indicated by a superscript 'G' and post-doctoral researchers by a superscript 'PD'. Underline indicates the person was supervised by AJ Whelton.

1. Adam, CA, Dietrich, AM, Gallagher, DL, **Whelton, AJ**^{UG}, Boardman, GD, Edwards, M. 2000. Meeting US EPA's Operator Certification Guidelines in Virginia. [*Journal of the American Water Works Association*](#). **93** (8), 51–61. DOI: <https://doi.org/10.1002/j.1551-8833.2001.tb09266.x>.
2. Dietrich, AM, **Whelton, AJ**, Hoehn, R, Brady-Gilles, R. 2004. The Attribute Rating Test for Sensory Analysis. [*Water Science & Technology*](#). **49** (9), 61–67. DOI: <https://doi.org/10.2166/wst.2004.0535>.
3. Dietrich, AM, Glindemann, D, Pizarro, F, Gidi, V, Olivares, M, Araya, M, Camper, A, Duncan, S, Dwyer, S, **Whelton, AJ**, Younos, T, Subramanian S, Burlingame GA, Khiari D, Edwards M. 2004. Health and Aesthetic

- Impacts of Copper Corrosion on Drinking Water. *Water Science & Technology*. **49** (2), 55–62. DOI: <https://doi.org/10.2166/wst.2004.0087>.
4. **Whelton, AJ^G**, Dietrich, AM. 2004. Relationship Between Intensity, Concentration, and Temperature for Drinking Water Odorants. *Water Research*. DOI: <https://doi.org/10.1016/j.watres.2003.11.036>.
 5. **Whelton, AJ^G**, Dietrich, AM, Burlingame, GA, Johnson, M, Duncan, SE. 2005. Minerals in Drinking Water: Impacts on Health. *Water Science & Technology*. **55** (5), 283–91. DOI: <https://doi.org/10.2166/wst.2007.190>.
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 9. **Whelton, AJ^G**, Dietrich, AM. 2009. Critical Considerations for the Accelerated Aging of High Density Polyethylene Potable Water Materials. *Polymer Degradation & Stability*. DOI: <http://dx.doi.org/10.1016/j.polymdegradstab.2009.03.013>.
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 11. **Whelton, AJ^G**, Dietrich, AM, Gallagher, DL. 2010. Impact of Chlorinated Water Exposure on Contaminant Diffusion, Solubility, and Polymer Mechanical and Oxidative Properties. *Journal of Environmental Engineering*. **137**, 559–569. DOI: [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0000366](https://doi.org/10.1061/(ASCE)EE.1943-7870.0000366).
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Contributed National Academies of Science, Engineering, and Mathematics reports and activities

1. **Wildfire Workshop Report for the National Academies of Science, Engineering, and Mathematics (NASEM).** Implications for Health: Responding to and Recovering from Wildfire Caused Drinking Water System Contamination (4 pgs). In: *Chapter 4: Effects of Wildfire on Human Health (pg 24–46), Implications of the California Wildfires for Health, Communities, and Preparedness: Proceedings of a Workshop*. National Academies of Science, Engineering, and Mathematics (NASEM), Board on Population Health and Public Health Practice and Board on Health Sciences Policy. Washington, D.C. USA. December 2019. Available here: <https://www.nap.edu/catalog/25622/implications-of-the-california-wildfires-for-health-communities-and-preparedness>
2. **Chemical Spill Workshop Report for the National Academies of Science, Engineering, and Mathematics (NASEM).** *Public Health Research and Surveillance Priorities from the East Palestine, Ohio Train Derailment: A Workshop*. National Academies of Science, Engineering, and Mathematics (NASEM), Health and Medicine Division. Washington, D.C. USA. January 2024. Available here: <https://nap.nationalacademies.org/catalog/27441/public-health-research-and-surveillance-priorities-from-the-east-palestine-train-derailment>
3. **Moderator, National Academies of Science, Engineering, and Mathematics (NASEM).** Water Protection. Clinical Follow-Up and Care for Those Impacted by the JP-5 Releases at Red Hill. August 7, 2025. Public recording: https://www.nationalacademies.org/event/45464_08-2025_clinical-follow-up-and-care-for-those-impacted-by-the-jp-5-releases-at-red-hill-webinar-series-protection-of-water
4. **Committee Report for the National Academies of Science, Engineering, and Mathematics (NASEM).** Clinical Follow-Up and Care for Those Impacted by the JP-5 Releases at Red Hill. Ongoing committee 2025-2026, Report available here: <https://www.nationalacademies.org/our-work/clinical-follow-up-and-care-for-those-impacted-by-the-jp-5-releases-at-red-hill>
5. **[INVITED KEYNOTE TO BRIEF]** U.S. National Academies of Science, Engineering, and Medicine: Wildfires and Municipal Water Systems. Water Science and Technology Board. May 14-15, 2025. Irvine, California.
6. **[INVITED TO BRIEF]** Standing Committee on Medical and Public Health Research During Large-Scale Emergency Events, Board on Health Sciences Policy, Health and Medicine Division, *The National Academies of Sciences, Engineering, and Medicine*. Washington, D.C. October 18, 2016. Whelton, AJ. Repairing Infrastructure: Potential Implications to Public Health.
7. **[INVITED TO BRIEF]** *Public Health Research and Surveillance Priorities from the East Palestine, Ohio Train Derailment: A Workshop*. The National Academies of Sciences, Engineering, and Medicine. Washington, D.C. USA. November 6, 2020. *Whelton AJ. Chemical Fate and Exposure Pathways from the 2023 Chemical Spill and Chemical Fires in East Palestine, Ohio.

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10. Technical comment provided to the National Academies of Science, Engineering, and Mathematics committee on *The Chemistry of Urban Wildfires*. August 2021.

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1. Dietrich, AM, **Whelton, AJ**^G, Gallagher, DL. *Evaluating Critical Relationships Between New and Aged Polyethylene Water Pipe and Drinking Water Contaminants Using Advanced Material Characterization Techniques, Final Report*. January 2011. Water Research Foundation. Denver, Colorado.
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4. Duncan, TV, Noonan, G, **Whelton, AJ**. *Detection and characterization of nanomaterial release from food contact materials*. International Expert Panel on NanoRelease and Food Additives Report. Spring 2014. International Life Sciences Institute. Washington, D.C.
5. **Whelton, AJ**, Tabor, ML^G, White, KD, Boettcher, A, Steward, E. *Standardized Test Method for Standardized Test Method to Quantify Environmental Impacts of Stormwater Pipe Rehabilitation Materials, Final Report*. November 2014. Virginia Department of Transportation, Charlottesville, Virginia.
6. **Whelton, AJ**, Gill, JP^G, Froderman, B^{UG}, Song, L^G, Teimouri, M^G, Cai, H. *Storm Water Pollution and Best Management Practice Guidance for Indiana, Final Report*. Indiana Department of Transportation. October 2015. Indianapolis, Indiana.
7. **Whelton, AJ**, Gill, JP^G, Hawes, J^{UG}. *Biocide Induced Plastic Pipe Degradation in Energy Generation Cooling Water Systems, Final Report*. August 5, 2016. Southern Company Services, Inc. Atlanta, Georgia.
8. Huang, X^G, **Whelton, AJ**, Andry, S^{UG}, Yaputri, J^{UG}, Kelly, D^{UG}, Ladner, DA. *Interaction of Fracking and Crude Oil Contaminants with Water Distribution Pipes, EO 2014–07, Final Report*. 2017. Water Research Foundation, Denver, Colorado.
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11. **Whelton, AJ**, Shannahan, J, Noh, Y^G. *Final Report: Public Health Workgroup on Developing Practices for Responding to Chemical Incidents Associated with Cured in Place Construction Pipes, Project 00E02898*. June 1, 2021. Chicago, Illinois.
12. **Whelton, AJ**, Mitchell, J, Rose, J, Nejadhashemi, AP, Beecher, J, Dreelin, E, Shah, A, Salehi, M, Aw, T. *Right Sizing Tomorrow's Water Systems for Efficiency, Sustainability, and Public Health, Final Report*. August 2022. Washington, D.C. <https://engineering.purdue.edu/PlumbingSafety/project/Purdue-USEPA-Final-Report-August-2022.pdf>
13. Fischer E, Wham B, Dashti S, Javernick-Will A, Liel A, **Whelton A**, Berty N, Klingaman J, Metz A, Ramos J, Rose H-R. *The 2021 Marshall Fire, Boulder County, Colorado, GEER-0075*. May 2022. Geotechnical Extreme Events Reconnaissance (GEER) Association. DOI: <http://www.doi.org/10.18118/G6KT04>. https://geerassociation.org/components/com_geer_reports/geerfiles/GEER%20Marshall%20Fire%20Report_v1_May%202022.pdf
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15. Isaacson, K, **Whelton, AJ**, Shah, AD. *Post-Wildfire Distribution System Water Quality Impacts and Potential Responses, Final Report 5106*. 2025. Water Research Foundation, Denver, Colorado. <https://www.waterrf.org/research/projects/post-wildfire-distribution-system-water-quality-impacts-and-potential-responses>

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16. **Whelton, AJ.** Response to Comments from the National Sanitation Foundation International regarding: Connell M, Stenson A, Weinrich L, LeChevallier M, Whelton AJ. PEX and PP Water Pipes: Microbial Regrowth, Chemicals, and Odors. *Journal of the American Water Works Association*. August 2016 in JAWWA. <http://www.awwa.org/publications/journal-awwa/abstract/articleid/60429080.aspx>

The Conversation and Op-Ed Publications

17. **Whelton, AJ**, Gupta, R. What We Have Learned from the West Virginia Water Crisis. *PE News Magazine*. National Society of Professional Engineers. August/September 2014.
18. **Whelton, AJ.** We Need Better Science to Deal with Drinking Water Accidents. [Undark](#). April 27, 2016.
19. Whelton, AJ, Jafvert, C, Boor, B, Howarter, JA, Youngblood, J, Shannahan, J. Cured-in-Place Pipe: The Role of Engineers in Worker and Public Safety. *PE News Magazine*. National Society of Professional Engineers. September/October 2017.
20. **Whelton AJ**, Proctor CR^{PD}. Amid a Water Crisis, California Officials Fan Flames of Confusion. [Undark](#). September 19, 2019.
21. Proctor CR^{PD}, Rhoads WJ, **Whelton AJ**. The coronavirus pandemic might make buildings sick, too. [The Conversation](#). April 21, 2020. [87,176 views]
22. Proctor CR^{PD}, **Whelton AJ**. COVID-19 collateral damage: Our drinking water. [Medium](#). July 31, 2020.
23. **Whelton AJ**, Proctor CR. Wildfires can poison drinking water – here's how communities can be better prepared. [The Conversation](#). August 3, 2020. [20,086 views]
24. Proctor CR^{PD}, **Whelton AJ**. Dangerous bacteria is showing up in school water systems, reminding all buildings reopening amid COVID-19 to check the pipes. [The Conversation](#). September 10, 2020. [8,065 views]
25. **Whelton AJ**, Shah AD, [Isaacson K^G](#). Plastic pipes are polluting drinking water systems after wildfires – it's a risk in urban fires, too. [The Conversation](#). December 14, 2020. [73,098 views]
26. Cwiertny D, **Whelton AJ**. EPA's plan to test for lead in schools will do more harm than good. [The Hill](#). February 2, 2021.
27. **Whelton AJ**. Wildfires are contaminating drinking water systems, and it's more widespread than people realize. [The Conversation](#). May 6, 2021. [10,527 views]
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29. **Whelton AJ**. How dangerous was the Ohio chemical train derailment? An environmental engineer assesses the long-term risks. [The Conversation](#). February 15, 2023. [86,383 views]
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31. **Whelton AJ**, Cooney MF. 2004. We Need Our Customers to Complain. *AWWA OPFLOW Magazine*. 30(11), 1, 11–13. American Water Works Association, Denver, Colorado.
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34. **Whelton AJ**, Howarter JA. 2018. Improved worker and public safety needed: cured-in-place-pipe. February 2018. *Reporter Magazine*. American Public Works Association (APWA), Washington, D.C.
39. Proctor CR^{PD}, **Whelton AJ**, Shah AD, Lee J. Response team investigates wildfire damage to buried drinking water infrastructure. *ASCE Magazine*. January 2020.
35. **Whelton AJ**, Proctor CP. June 28, 2021. Profoundly Important: Health Professionals and Building Water Safety Decisions. *NACCHO Exchange*. NACCHO.
36. Proctor CP, **Whelton AJ**, Shah AD, Lee J. Jan. 15, 2021. Fire and Water. *Civil Engineering Magazine*. ASCE.
37. **Whelton AJ**, Shannahan J. 2021. Risks of infrastructure renovation: Bystander injuries due to sewer pipe repair emissions. [National Volunteer Fire Council](#) Newsletter. December 21, 2021.
38. **Whelton AJ**. The Most Destructive Fire in Colorado's History: The 2021 Marshall Fire. [APWA Reporter Magazine](#). June 2022.
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25. **Whelton AJ**, Richards TE, Valcik JA. 2002. *Guidance for Conforming to the Long Term One Enhanced Surface Water Treatment Rule. Information Paper*. U.S. Army Center for Health Promotion and Preventive Medicine. Aberdeen Proving Ground-Edgewood Area, Maryland.
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27. **Whelton AJ**. Army Takes a Leading Role for Addressing Corrosion of Drinking Water Pipes. [CHPPM Weekly](#). October 2002. US Army CHPPM. Aberdeen Proving Ground, Maryland.
28. **Whelton AJ**. *Just the Facts... Potable Water System Plumbing Corrosion*. Fact Sheet. 1pp. December 2002. US Army Center for Health Promotion and Preventive Medicine. Aberdeen Proving Ground, Maryland.
29. **Whelton AJ**. *Just the Facts...Drinking Water Consumer Complaints*. Fact Sheet. 1pp. February 2003. US Army Center for Health Promotion and Preventive Medicine. Aberdeen Proving Ground, Maryland.
30. **Whelton AJ**. *Drinking Water Consumer Complaints: Indicators from Distribution Sentinels*, TG 284. Technical Guide. 75pp. May 2003. US Army Center for Health Promotion and Preventive Medicine. Aberdeen Proving Ground, Maryland.
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38. DiSalvo R, McCollum G, **Whelton AJ**. *Wastewater Pretreatment Issues and Sulfate Study for the Town of Pulaski Sewer System and Nanotechnology Industrial Park*. 2008. Draper Aden Associates, Inc. Blacksburg, Virginia.
40. Apul D, Ladner D, **Whelton AJ**, and AEESP Student Services Committee. Student Services Committee workshop gives advice, wisdom, and individualized feedback to academic job seekers. [AEESP Newsletter](#). August 2011.
41. **Whelton AJ**, Stenson A. *Final Report, Identification of Big Creek Lake Contaminants Responsible for Drinking Water Disinfectant Byproduct (DBP) Formation at the E.M. Stickney and H.E. Myers Water Treatment Plants*. June 2012. Submitted to: Mobile Area Water and Sewer System, Mobile, Alabama.
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52. **Whelton AJ**, Lee J, Proctor C^{PD}. *Technical Opinion: Considerations for Decontaminating HDPE Service Lines by Flushing, Final*. March 2019. Prepared for the Camp Fire Water Task Force with USEPA Region 9 and USEPA Office of Research and Development collaboration.
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57. **Whelton AJ**, Bollens E. *Opinion: Preprint and Community Response to LA Fire Health*. August 28, 2025. Boston, Massachusetts.
58. **Whelton AJ**, Bollens, E, Ferrarezzi, C^G. *After the Wildfire: Considerations for Building Environmental Testing*. September 9, 2025. Part of the Resilience to Emergencies and Disasters (RED) Series. Purdue University. West Lafayette, Indiana. DOI: 10.5703/1288284317911. <https://docs.lib.purdue.edu/red/1/>
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62. **Whelton AJ**. Testimony. State of Indiana, Indiana Senate, Environmental Affairs Committee, Senate Bill 312, Tank Registration and Water Threat Minimization Act. Submitted January 2015. Indianapolis, Indiana.
63. **Whelton AJ**. Testimony. State of Oregon, Indiana House of Representatives, House Water Committee, House Bill 4043 pertaining to water piping decisions for drinking water infrastructure. Submitted February 11, 2019. Salem, Oregon.
64. **Whelton AJ**, Cwiertny D, Rose J. Public Comment. U.S. Environmental Protection Agency, Comment to the National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions, Docket ID No. EPA-HQ-OW-2017-0300. Submitted February 12, 2019. Washington, D.C.
65. **Whelton AJ**, Cwiertny D. Public Comment. State of Indiana, Governor Holcomb, House Bill 1265 pertaining to drinking water testing in Indiana schools. Submitted March 3, 2020. Indianapolis, Indiana.
66. **Whelton AJ**. Public Comment. City of Vancouver, Canada, Bylaw amendment pertaining to building water systems. Submitted June 9, 2020. Vancouver, Canada.
67. **Whelton AJ**. Letter to the U.S. Department of Labor, Occupational Safety and Health Administration Director Douglas Parker. Request to deploy worker safety teams to East Palestine Ohio for inhalation and dermal exposure investigations. March 2, 2023. Washington, D.C.
68. **Whelton AJ**. Public Comment. U.S. Senate, Environment and Public Works Committee. Hearing, March 8, 2023. Washington, D.C.
69. **Whelton AJ**. Testimony to the Commonwealth of Pennsylvania Senate Veterans and Emergency Preparedness Committee hearing. March 20, 2023. Harrisburg, Pennsylvania.
70. **Whelton AJ**. Letter to Pennsylvania Governor Josh Shapiro. New testing results from Purdue University and resources. March 20, 2023. Harrisburg, Pennsylvania.
71. **Whelton AJ**. Public Comment. U.S. House of Representatives, Subcommittee on Environment, Manufacturing, and Critical Materials Hearing. March 21, 2023. Washington, D.C.
72. **Whelton AJ**. Letter to East Palestine High School and East Palestine Superintendents. School cleaning. March 27, 2023. East Palestine, Ohio.
73. **Whelton AJ**. Letter to U.S. Environmental Protection Agency Administrator Michael Regan. Request for private well water testing oversight of Norfolk Southern. April 12, 2023. Washington, D.C.
74. **Whelton AJ**. Testimony of Andrew J. Whelton to the Democratic Policy Committee Hearing, May 17, 2023. Commonwealth of Pennsylvania, Harrisburg, Pennsylvania.

75. **Whelton AJ**, Mohanty S, West J, Silva S, John S, Cotton J, Borsch T, O'Connell C, Tissot F, Peña J, Palomo M, Quinn. *Technical Opinion: Letter to California Governor Gavin Newsom. Urgent Community Concern Over Parcel Soil Testing After Wildfire*. May 14, 2025. Sacramento, California.
76. **Whelton AJ**. *Technical Opinion: Letter to California Governor Gavin Newsom. Problems and Solutions to the DTSC Post-Fire Soil Testing Guidance Document*. August 24, 2025. Sacramento, California.
77. **Whelton AJ**, Bollens E, Goldberg M. *Technical Opinion: Letter to Los Angeles Unified School District: Indoor Air Pali High School Charter Re-Occupancy*. Pacific Palisades, California.
78. **Whelton AJ**. *Opinion to the State of California about Post Fire Environmental Assessment and Restoration*. January 26, 2026. Sacramento, California.
79. **Whelton AJ**. *Opinion to Property Owners about Worker Safety at Properties with Elevated Thallium or Beryllium in Soil or at Buildings*. January 29, 2026. Pacific Palisades, California.
80. **Whelton AJ**. *Opinion to the State of Colorado about House Bill 24-1315, Study on Remediation of Property Damaged by Fire*. September 11, 2026. Denver, Colorado.

Invited conference/symposium/colloquium/seminar series presentations

1. ***Whelton, AJ^G**. Chemistry of Decontamination for Water Distribution and Plumbing Materials. *3rd Annual Toxic Industrial Chemicals and Toxic Industrial Materials Symposium*. Richmond, VA. 2005.
2. ***Whelton, AJ**. Disaster Preparedness Exercises, Using Them to Train for a Response. *Virginia AWWA Annual Joint Safety and Security Conference*. Richmond, Virginia. 2006.
3. ***Whelton, AJ**. Lessons Learned from Conducting Disaster Preparedness Exercises, Military, EPA, and Utility Experiences. *Virginia AWWA Annual Conference*. Williamsburg, Virginia. 2006.
4. ***Whelton, AJ^G**. Integration of Customer Feedback into Online Early Warning Systems. *Virginia Cross-Connection Control Association Annual Conference*. Blacksburg, Virginia. 2007.
5. ***Whelton, AJ^G**. How Can We Predict Polymeric Pipe Sustainability if Our Experimental Methods are Flawed? Seminar for Engineering for Sustainability College of Engineering Initiative. *Departments of Construction, Civil, and Environmental Engineering and Agricultural and Biosystems Engineering, Iowa State University*. Ames, Iowa. January 2009.
6. ***Whelton, AJ^G**. Advancing Infrastructure Sustainability by Improving Polymeric Pipe Aging Methods. *Department of Civil Engineering, Gonzaga University*. Spokane, Washington. February 2009.
7. ***Whelton, AJ^G**. Critical Considerations for the Accelerated Aging of Polyethylene Potable Water Infrastructure. *Department of Civil and Environmental Engineering, Florida International University*. Miami, Florida. April 2009.
8. ***Whelton, AJ^{PD}**. Aging, Material, and Chemical Considerations for Measuring Polymer Potable Water Pipe Performance. *Building Fire Research Laboratory (BFRL), NIST*. Gaithersburg, Maryland. July 2009.
9. ***Whelton, AJ^{PD}**. A Paradigm Shift: Aging and Chemical Performance of Building and Buried Plastic Water Pipes. *Department of Civil and Environmental Engineering, Northeastern University*. Boston, Massachusetts. July 2009.
10. ***Whelton, AJ^{PD}**. Buried Water Infrastructure Aging, Performance, and Future. *Department of Civil Engineering, University of South Alabama*. Mobile, Alabama. March 2010.
11. ***Whelton, AJ^{PD}**. The Role of Polyethylene Pipe Aging on Drinking Water Quality. National Research Council Associate Monthly Meeting. *Building Fire Research Laboratory (BFRL), NIST*. Gaithersburg, Maryland. August 10, 2010.
12. ***Salehi, M^G**, Hsiao, K-T, Forster, A, **Whelton, AJ**. The Role of Carbon Nanofiber Reinforcement on Organic Contaminant Release: Implications for Potable Water Pipe Technology Development. *Nanotechnology Conference and Exposition*. Washington, D.C. May 12-16, 2013. Sent graduate student in place.
13. ***Whelton, AJ**. Towards a Fundamental Understanding of Polymer-Water Interactions and Polymer Aging: Pipes, Coatings, and Research and Development Opportunities for Water and Energy Infrastructure ... and Beyond. *National Renewable Energy Laboratory (NREL)*. Golden, Colorado. July 17, 2013.
14. ***Whelton, AJ**. Drinking water quality impacts by PEX and PP plumbing pipes. *Department of Civil Engineering and Division of Environmental and Ecological Engineering, Purdue University*, Lafayette, Indiana. March 6, 2014.
15. ***Whelton, AJ**, **McMillan L^G**, White KD, **Kelley KM^G**, **Gill JP^G**, **Connell M^G**. Lessons Learned from the Largest Chemical Drinking Water Contamination Incident in US History: The 2014 Elk River Chemical Spill. Advanced Material Research Institute. *University of New Orleans*, New Orleans, Louisiana. March 12, 2014.
16. ***Whelton, AJ**. You Can Make a Difference: The Application of Science to the Elk River Chemical Spill Response and Recovery. *National Association of City and County Health Officials (NACCHO) Conference*. Atlanta, Georgia. July 10, 2014.
17. ***Whelton, AJ**. The Role of Science in Responding to Drinking Water Contamination Disasters. *AWWA Water Infrastructure Conference*. The Freedom Industries Chemical Spill Charleston, West Virginia. Atlanta, Georgia. October 26-29, 2014.
18. ***Whelton, AJ**. Scientific issues surrounding the January 9, 2014 chemical spill that contaminated the distribution and plumbing systems serving 300,000 West Virginians. *Lyles School of Civil Engineering Hydraulics Program, Purdue University*, West Lafayette, Indiana. November 4, 2014.

19. ***Whelton, AJ.** Water infrastructure scientific needs and innovation: disasters, green buildings, and sustainability. *Department of Civil and Environmental Engineering, UMASS Amherst.* Amherst, Massachusetts. November 7, 2014.
20. ***Whelton, AJ.** Evergreen Arts and Humanities Speaker Series: Lessons learned from the Elk River chemical spill. *Evergreen Arts and Humanities Series of Washington State Community College.* Marietta, Ohio. November 15, 2014.
21. ***Whelton, AJ.** Safer and greener premise plumbing systems: The role of polymer piping on drinking water quality. *Department of Civil and Environmental Engineering, UMASS Lowell.* Lowell, Massachusetts. November 18, 2014.
22. ***Whelton, AJ.** Preparing Indiana for Water Infrastructure Disaster Response and Recovery: Lessons Learned from the Freedom Industries Chemical Spill. *Defining Indiana's Water Needs: Research and Solutions.* Indianapolis, Indiana. December 12, 2014.
23. ***Whelton, AJ.** Status of Ongoing and Completed West Virginia Chemical Spill Research. *Summit on Chemical Safety.* Charleston, West Virginia. January 24, 2015.
24. ***Whelton, AJ.** Failing to Contain Pollutants Upstream of a Drinking Water Intake. *Indiana Stormwater Drainage Conference.* West Lafayette, Indiana. February 12, 2015.
25. ***Whelton, AJ.** Emerging Issues Regarding the Impact of Polymer Pipes, Coatings, and Liners on Water Quality. *American Chemical Society PITTCON Conference.* New Orleans, Louisiana. March 8–12, 2015.
26. ***Whelton, AJ.** Disasters, Healthy Buildings, and Infrastructure Rehabilitation: Opportunities for Collaborations. New Faculty Seminar Series of *Purdue University's Water Community.* West Lafayette, Indiana. April 9, 2015.
27. ***Whelton, AJ.** Plastics in Water Infrastructure: The Need for Scientific Understanding Before It's Too Late. *65th Kansas University Environmental Engineering Conference.* Lawrence, Kansas. April 16, 2015.
28. ***Whelton, AJ.** Lessons Offered by Recent Large-Scale Drinking Water Contamination Incidents in the U.S. and Canada. *Indiana AWWA Central District Meeting.* Danville, Indiana. May 13, 2015.
29. ***Whelton, AJ.** Disasters Strike: How You Can Help Others. *Summer Undergraduate Research Program, Purdue University.* West Lafayette, Indiana. July 23, 2015.
30. **[KEYNOTE OPENING GENERAL SESSION] *Whelton, AJ.** A Story of Resilience: The West Virginia Chemical Spill. *Indiana Alliance for Rural Water Annual Conference.* Fort Wayne, Indiana. August 26, 2015.
31. ***Whelton, AJ.** Plastics in Your Home: Moving Forward. *Indiana Alliance for Rural Water Annual Conference.* Fort Wayne, Indiana. August 26, 2015.
32. ***Whelton, AJ.** Resilient Urban Infrastructure: Water Contamination Investigation and Recovery. *University of Iowa Department of Civil and Environmental Engineering and Public Policy Center,* Iowa City, Iowa. September 11, 2015.
33. ***Whelton, AJ.** West Virginia Spill and Surface Water Facility Resilience. *American Council of Engineering Companies (ACEC) Indiana Environmental Business Conference.* Indianapolis, Indiana. September 17, 2015.
34. ***Whelton, AJ.** Chemical Spills, Drinking Water Contamination, and Recovery: The Role of Science, Ethics, and Policy. Seminar Series for the *School of Health Sciences, Purdue University.* West Lafayette, Indiana. October 20, 2015.
35. ***Whelton, AJ.** Public Health Consequences of Energy Policies and Practices. *Engineers for a Sustainable World Regional Conference., Purdue University.* West Lafayette, Indiana. October 24, 2015.
36. ***Whelton AJ.** Planning for a water contamination emergency, research and education needs. *Global Sustainability Institute Summit, Purdue University.* West Lafayette, Indiana. November 12, 2015.
37. ***Whelton, AJ.** There is Nothing Natural about Drinking Water Disasters: The Need for Scientists, Engineers, and Policy Professionals to Step Forward. *Indiana University School of Public and Environmental Affairs (SPEA),* Bloomington, Indiana. March 31, 2016.
38. ***Whelton, AJ.** Planning Ahead for Contamination: Accidents, Mother Nature, and the Unexpected. *Indiana Rural Water Conference.* Columbus, Indiana. April 19, 2016.
39. ***Whelton, AJ, Casteloes KS^G, Hawes JU^G.** Premise Plumbing Decontamination: Research and Technology Needs. *International Emerging Technology Symposium.* International Association of Plumbing and Mechanical Officials (IAPMO). Rosemont, Illinois. May 10, 2016.
40. ***Whelton, AJ.** Why is Our Plumbing Harming Us? *Purdue University's Doom or Dawn,* West Lafayette, Indiana. October 3, 2016.
41. ***Whelton, AJ.** Repairing Infrastructure: Potential Implications to Public Health. Standing Committee on Medical and Public Health Research During Large-Scale Emergency Events, Board on Health Sciences Policy, Health and Medicine Division, *The National Academies of Sciences, Engineering, and Medicine.* Washington, D.C. October 18, 2016.
42. ***Whelton, AJ.** New Research on Plastic Pipes: Water Quality and Air Quality Challenges. *Florida Section AWWA Webinar.* November 1, 2016.
43. ***Whelton, AJ.** Infrastructure Rehabilitation and New Construction: Pipes, Coatings, Liners and Composites. *Water 2.0 Conference.* Indianapolis, Indiana. November 16, 2016.
44. ***Whelton, AJ.** The Freedom Industries Chemical Spill, West Virginia and Beyond. *University of Buffalo, Department of Civil and Environmental Engineering.* Buffalo, New York. December 2, 2016.

45. ***Whelton, AJ**, *Boor B, *Howarter J, Teimouri M^G, Ra K^G, Conkling E^{UG}, Zyaykina N, Youngblood J, Jafvert C, Nuruddin MD^G, Townsend M^{UG}. Understanding Chemical Exposure Risks from Cured in Place Pipe (CIPP) Technology Used for Water Pipe Rehabilitation. *National Institute of Occupational Health (NIOSH)*. Morgantown, West Virginia. February 13, 2017.
46. ***Whelton, AJ**. Contaminant Release from Storm Water Culvert Rehabilitation Technologies: Environmental & Long-Term Material Integrity Impacts. *American Association of State Highway Transportation Officials (AASHTO) Subcommittee on Bridges and Structures (SCOBS) Annual Meeting*. Spokane, Washington. June 11–15, 2017.
47. ***Whelton, AJ**. Water Technology Misuse, Flaws, and Disasters: The Need for Reinvention. *Purdue University's Doom or Dawn*, West Lafayette, Indiana. September 27, 2017.
48. *Huang, X^G, **Whelton, AJ**. Role of Plastics on Building Water Quality: Current Knowledge and Needs. *USEPA Drinking Water Workshop: Small Systems Challenges and Solutions*. Cincinnati, Ohio August 22–24, 2017.
49. ***Whelton, AJ**, Shannahan, J, Howarter, J, Boor, BE, Youngblood, J, Jafvert, C. Occupational and Public Health Hazards Associated with Water Pipe Repairs. *National Environmental Health Association Webinar*. October 5, 2017. <http://neha.org/node/59303>
50. **Whelton AJ**, Howarter J. Contaminant Release from Storm Water Culvert Rehabilitation Technologies: Understanding Implications to the Environment and Long-Term Material Integrity. Culverts & Hydraulic Structures Committee (AFF70) *Transportation Research Board Annual Conference*. January 11, 2018. Washington, D.C.
51. **Whelton, AJ**. Catalyzed by Citizen and Practitioner Requests: Water Pipe Repairs Bring Public Health and Occupational Exposure Risks. *AEESP Distinguished Lecture and Purdue University Conference*. West Lafayette, Indiana. February 2, 2018.
52. ***Whelton, AJ**, Salehi, M^{PD}, Mitchell, J, Rose, J, Nejadhashemi, AP, Beecher, J, Dreelin, E, Shah, A, Syal, M, Aw, T. Building Plumbing Safety: Right Sizing Tomorrow's Water Systems for Efficiency, Sustainability, and Public Health. *American Chemical Society Spring Conference*. New Orleans, Louisiana. March 18–22, 2018.
53. ***Whelton, AJ; Shannahan, J**. Emerging Issue in Public and Occupational Health: Chemical Emissions and Exposures from Water Pipe Repairs. *Association of State and Territorial Health Officials (ASTHO)*. Fort Collins, Colorado. April 10, 2018.
54. *Ra, K^G, Teimouri Sendesi, SM^G, Howarter, J, Jafvert, CT, Donaldson, B, **Whelton, AJ**. Limiting CIPP and Spray-On Liner Culvert Rehabilitation Water Quality Impacts and Construction Specifications. *Northwest Indiana Stormwater Advisory Group Meeting*. LaPorte, Indiana. June 21, 2018.
55. ***Whelton, AJ**. Chemical Air Contamination and Exposures Associated with Sewer Pipe Repairs. *Indiana Environmental Health Association Conference*. September 24–26, 2018. Evansville, Indiana.
56. ***Whelton, AJ**. *Plumbing Innovation as a Driver for Improved Public Health*. Plumbing Manufacturers International Conference. Litchfield, Arizona. November 6–8, 2018.
57. ***Whelton, AJ**. Preserving Water Quality in Building Design. *US Green Building Council GreenBuild–WaterBuild*. Chicago, Illinois. November 13, 2018.
58. ***Whelton, AJ**. Treatment Plant, Distribution & Premise Plumbing Issues. *Michigan Drinking Water Workshop hosted by the Michigan Environmental Council*. Ann Arbor, Michigan. December 6, 2018.
59. ***Whelton AJ**. Importance of science in responding to large-scale drinking water contamination disasters: Wildfires, chemical spills, & more. *American Chemical Society Annual Meeting*. San Diego, California. August 2019.
60. ***Whelton, AJ**. Where we are Today: Cured in Place Pipe Lining (CIPP) Chemical Emissions and Safety. *Indiana ACEC annual meeting*. Indianapolis, Indiana. September 2019.
61. **Whelton, AJ**. Plumbing: Disaster Response and Safe Water for Schools and Homes. Plumbing Manufacturers International Conference. St. Petersburg, Florida. November 2019.
62. **Whelton, AJ**. Widespread Drinking Water Contamination: Coming Back from California's Most Destructive and Deadliest Wildfire in State History. *Indiana Rural Water Association Conference*. French Lick, Indiana. December 2019.
63. **Whelton, AJ**, Youngblood JP, Howarter JA. Lessons Learned from a 3 Year DOT Study for Cured-in-Place-Pipe (CIPP) for Storm Water Applications. *Indiana Stormwater Conference*. West Lafayette, Indiana. February 6, 2020.
64. ***Whelton, AJ**; Noh, Y, Shannahan, J. Communities Need Health Officials to Protect them from Neighborhood HAZMAT Incidents. *Association of State and Territorial Health Officials (ASTHO) Big Cities Environmental Health Coalition Meeting*. February 11, 2020.
65. *Proctor, CR, ***Whelton, AJ**. *Indiana Facility Managers Association (IFMA) Webinar*. May 7, 2020.
66. ***Whelton, AJ**, *Proctor, CR. Building Water System Safety in the Era of COVID–19. *PHCPPros Webinar*. May 8, 2020.
67. ***Whelton, AJ**. Rehabilitation of Building Water Systems. *Plumbing Industry Leadership Coalition meeting*. Washington, D.C. May 14, 2020.
68. *Proctor, CR, ***Whelton, AJ**. Building Water System Safety Research: COVID–19. *AWWA Kentucky/Tennessee Section Webinar*. May 15, 2020.
69. ***Whelton, AJ**. COVID–19's crisis on the impact of plumbing systems. *American Society of Plumbing Engineers (ASPE) Webinar*. May 26, 2020.

70. ***Whelton, AJ.** COVID-19: Reopening Buildings and Challenges with Building Water Safety. *NEHA Webinar*. May 22, 2020.
71. ***Whelton, AJ.** Impact of Prolonged Shutdown on Buildings from a Water Quality Perspective. *Water Research Foundation Webinar*. May 28, 2020.
72. ***Whelton, AJ.** What to do Now: Addressing Building Re-occupancy and Low Water Use. *Association of State and Territorial Health Officials (ASTHO) Webinar*. June 8, 2020.
73. ***Whelton, AJ.** COVID-19, Building Water Safety, and Fixing Pipes. *CBBEL, Inc. Webinar*. June 18, 2020.
74. ***Whelton AJ,** Proctor CR. Healthy Building Webinar Series: Water Quality with Purdue. *US Green Building Council (USGBC) Michigan Webinar*. June 25, 2020.
75. ***Whelton AJ.** Lessons from the Field: Building Water System Interventions. *International Water Association Webinar on COVID-19: Ensuring Safe Water in Sparsely Occupied Buildings*. July 16, 2020.
76. ***Whelton AJ.** Ready school building water systems and operate them under low water use conditions. *Building Water Safety in Schools Webinar initiated by the Indiana State Department of Health*. July 13, 2020.
77. ***Whelton AJ.** Water Quality Variances in Multiple Locations of a Home. *Water Quality Association Webinar*. July 29, 2020.
78. ***Whelton, AJ.** Water Bugs: Building Water Stagnation – Water Quality and Addressing Concerns. *Florida Section AWWA Webinar*. August 5, 2020.
79. ***Whelton AJ.** Returning Plumbing to Safe Use After Extended Shutdowns or Low Occupancy: Large Buildings, Standards, Considerations, and Gaps. *17th annual US EPA Drinking Water Workshop*. September 1, 2020.
80. ***Whelton AJ,** *Teefy S, *Morley K. Wildfire Damage to Drinking Water Distribution Systems and Buildings: Physical and Chemical Impacts and Proposed Project. *Pacific Northwest Section AWWA meeting*. September 24, 2020.
81. ***Whelton AJ.** After Drinking Water Contamination Disasters, is Policy Enough to Protect Public Health? Department of Civil and Environmental Engineering, University of New Mexico. October 6, 2020.
82. ***Whelton AJ.** How to ensure the taps you are using are safe after being shutoff for so long? *AEESP Converging COVID19: Creation of Efficient, Healthy, and Resilient Cities*. October 30, 2020.
83. ***Whelton AJ.** COVID-19 and Building Water Systems Large Buildings, Standards, Considerations, and Gaps. *USEPA Source Water Leadership Forum*. November 14, 2020.
84. ***Whelton AJ.** Disaster Challenges and Opportunities: Safely and rapidly recovering drinking water systems. *India-Canada IMPACTS WESTalks*. December 2, 2020.
85. ***Whelton AJ.** It Takes More than Data. Charles E. Via Department of Civil and Environmental Engineering, Virginia Tech. February 12, 2021.
86. ***Whelton AJ.** Overcoming Decision Gaps Key Considerations for Utility Response Plans. *AWWA Virtual Summit: Water Quality*. December 8, 2020.
87. ***Whelton AJ,** Proctor C. Water Safety in Buildings: Issues at Hand. *AWWA Virtual Summit: Water Quality*. December 9, 2020.
88. ***Whelton AJ,** Jankowski C^G. Considerations for testing building water systems to identify health risks. *AWWA Virtual Summit: Water Quality*. March 3, 2021.
89. ***Whelton AJ,** Preventing Future Safety and Environmental Problems: Experiences of Polymers in Water Infrastructure Systems. Warren Distinguished Lecture, University of Minnesota. March 23, 2021.
90. ***Whelton AJ.** Considerations for returning plumbing to safe use after its been chemically contaminated. Royal Society of Public Health. April 14, 2021.
91. ***Whelton, AJ,** Noh Y^G, *Shannahan J. CIPP: Public Health, Worker Health, Infrastructure, and the Environment. *Risk Assessment Discussion Meeting, Center for the Environment, Purdue University*. Virtual Online. April 1, 2021.
92. ***Whelton, AJ.** Safer Plumbing Design, Use, and Recovering from Disasters. *IAPMO EWTS*. Virtual Online. May 12–13, 2021.
93. ***Whelton, AJ.** Water Safety, Disasters, and Plastics. Southern Nevada Water Authority, Las Vegas, NV. August 27, 2021.
94. ***Whelton AJ.** Lessons From the Pandemic: Building Water Safety in Schools, Offices, and Beyond. *Indiana Partners for Pollution Prevention Annual Meeting*. Indianapolis. September 2021.
95. ***Whelton, AJ.** Lessons from the Pandemic: Building Water Safety in Schools, Offices, and Beyond. Partners for Pollution Prevention. Indianapolis, IN. September 23, 2021.
96. ***Whelton, AJ.** Considerations for Wildfire Emergency Response and Health: Public Health Decisions in Response to Drinking Water System Contamination. *Presentation for the Canadian Ministry of Health and British Columbia Health, Canada*. Virtual Online. July 2021.
97. ***Whelton, AJ.** Drinking Water Quality Variations in Green Residential Plumbing and Disasters. *Annual Water Quality Association Conference*. Las Vegas, NV. July 28, 2021.
98. ***Whelton, AJ.** New Resources for Wildfire Contamination Response and Recovery. *National Environmental Health Association (NEHA) Monthly Meeting*. Virtual Online. July 28, 2021.
99. ***Whelton, AJ.** Water Safety Considerations for Private Wells After a Wildfire. *NEHA Private Water Network webinar*. Virtual Online. August 2021.

100. ***Whelton, AJ.** Considerations for response and recovery to contaminated water utility and building water systems. *Environmental Operators Certification Program (EOCP) annual meeting*. Vancouver, CN. Virtual Online. September 8, 2021.
101. ***Whelton, AJ.** Lessons From the Pandemic: Building Water Safety in Schools, Offices, and Beyond. *Partners for Pollution Prevention Annual Meeting*. Indianapolis, IN. September 23, 2021.
102. ***Whelton, AJ.** The Role of Science and Policy: Drinking Water Safety After Fires. School of Public Policy, University of California at Riverside. October 21, 2021. Virtual.
103. ***Whelton, AJ.** New Developments in Building Water Safety. *Plumbing Manufacturers International Meeting*. November 2021. San Diego, CA.
104. ***Whelton, AJ.** Building Water Safety & Colorado's Most Destructive Fire in History. *LTAP Stormwater Drainage Conference*. February 10, 2022. West Lafayette, IN.
105. ***Whelton, AJ,** Seidel C, Wham B, Fischer E. The 2021 Marshall Fire Impact on Large Water Utilities. *CONVERGE Forum*. February 17, 2022. Boulder, CO. Virtual.
106. ***Whelton, AJ.** The Role of Engineers in Protecting Public Health and the Environment. *Howard University Department of Civil and Environmental Engineering*. March 31, 2022. Washington, D.C.
107. ***Whelton, AJ.** Wildfire Lessons: The Camp Fire and More. *American Chemical Society Silicon Valley Section, Water Quality and Contamination Fate Following Natural Disasters*. March 31, 2022. Virtual.
108. ***Whelton, AJ.** Post-Wildfire Distribution System Water Quality Impacts and Potential Responses, Project 5106. Water Research Foundation Tailored Collaboration Program. April 5, 2022. Webinar.
109. **[KEYNOTE OPENING GENERAL SESSION] *Whelton, AJ.** The Marshall Fire. *Indiana American Water Works Association Annual Conference* April 12, 2022. Indianapolis, IN.
110. ***Whelton, AJ.** Taking an Active Role in Defending Public Health and Welfare in a Time of Crisis. Workshop: Engineering for Public Health: A Workshop on Convergent Research, Implementation, Science, and Stakeholder Engagement to Benefit Environmental Health. *AEESP Conference*, St. Louis, Missouri. June 2022.
111. ***Whelton, AJ.** Right Sizing Tomorrow's Water Systems for Efficiency, Sustainability, & Public Health. *NIST Plumbing Research Workshop*. Gaithersburg, Maryland. November 9, 2022.
112. ***Whelton, AJ.** Disaster Impacts on Plumbing. *NIST Plumbing Research Workshop*. Gaithersburg, Maryland. November 9, 2022.
113. ***Whelton, AJ.** American Fires: Water Infrastructure and Community Resilience. Imperial College. London, England. March 3, 2023.
114. ***Whelton, AJ.** Public health lessons from disasters that affect drinking water utilities and plumbing. Norwegian Institution of Public Health. Oslo, Norway. March 6, 2023.
115. ***Whelton, AJ,** Plastics in Water Contact Applications: Discoveries, Needs, and Collaborations Needed. University of Pittsburgh, Department of Civil and Environmental Engineering, Pittsburgh, Pennsylvania, March 31, 2023. Seminar.
116. ***Whelton, AJ.** Contaminated water challenges to households after disasters. Water Quality Association Conference and Exposition. Las Vegas, Nevada. April 18-20, 2023.
117. ***Whelton, AJ.** ***Coelho P.** Community Update: Rapid Response to the Norfolk Southern Chemical Spill and Chemical Fires in East Palestine, Ohio. Seminar. University of California Riverside. April 21, 2023.
118. ***Whelton AJ.** East Palestine Common Sense Summit. May 21, 2023. Virtual.
119. ***Whelton, AJ.** Cured-in-Place-Pipe Chemical Emissions and Health Risks. U.S. Environmental Protection Agency Air Toxics and Risk Assessment National Workgroup Meeting. June 8, 2023.
120. ***Whelton, AJ.** Rapid Response to the Norfolk Southern Chemical Spill and Chemical Fires in East Palestine, Ohio. *Indiana Water Resources Association annual conference*. West Lafayette, Indiana. June 2023.
121. ***Whelton, AJ.** The World is a Better Place When People Help One Another. *Purdue University Civil Engineering Staff Retreat*. Tippecanoe County, Indiana. July 2023.
122. ***Whelton, AJ.** *Disasters and Lessons*. Indiana Water Summit. Indianapolis, Indiana. August 11, 2023.
123. **[KEYNOTE] *Whelton, AJ.** Emergencies: How Prepared Are We? *EOCP Annual Conference*. Vancouver, Canada. September 13, 2023.
124. ***Whelton AJ.** Disasters. *Engineering Advisory Committee Meeting*. Division of Environmental and Ecological Engineering, Purdue University. West Lafayette, Indiana. September 22, 2023.
125. ***Whelton AJ.** American Fires. Arizona State University, School of Sustainable Engineering. Tempe, Arizona. September 26, 2023.
126. ***Whelton AJ.** Fire in urban and peri-urban areas: What are the threats? *Water Research Foundation Workshop: Wildfire Threats to Forested Water Supplies*. Seattle, Washington. October 3, 2023.
127. ***Whelton AJ.** Rapid Scientific Support for the Chemical Spill and Chemical Fires in East Palestine, Ohio. *National Association of Science Writers Conference*. Boulder, Colorado. October 10, 2023.
128. ***Whelton AJ.** Chemical Fate and Exposure Pathways from the 2023 Chemical Spill and Chemical Fires in East Palestine, Ohio. *Public Health Research and Surveillance Priorities from the East Palestine, Ohio Train Derailment: A Workshop*. The National Academies of Sciences, Engineering, and Medicine. Washington, D.C. USA. November 6, 2020.

129. ***Whelton AJ.** Heat, Wildfire, and Nanomaterials: EH&S Significance. National Nanotechnology Coordination Office (NNCO), *US-European Union 2023 NanoEHS Communities of Research Workshop*, Washington, D.C. USA. November 17, 2023.
130. ***Whelton, AJ,** Coelho PD. Chemical Spill and Chemical Fires in East Palestine, Ohio: Chemical Fate and Exposure Pathways. PITTCON. San Diego, California. February 24-28, 2024.
131. ***Whelton, AJ,** Disaster considerations for home water treatment companies. March 4, 2024. Orlando, Florida.
132. ***Whelton, AJ,** Rushing In: Water System Disaster Response. *Water Quality Association Annual Conference*. March 6, 2024. Orlando, Florida.
133. ***Whelton, AJ,** Case study of chemical and microbiological challenges in school water system: Building Design Optimization Session. *Water Quality Association Annual Conference*. March 6, 2024. Orlando, Florida.
134. ***Whelton, AJ,** Preparing for, Responding to, and Recovering from Wildfire Damage to Water Distribution Systems. *Canadian Coastal Water Association annual conference*. March 16, 2024. Virtual.
135. ***Whelton, AJ,** Stepping In to Support Community Driven Disaster Response and Recovery. March 18, 2024. Grand Valley State University, Allendale, Michigan.
136. ***Coelho PD^G, Whelton, AJ.** Disaster response lessons and implications from the 2023 Train Derailment in Ohio: Environmental and property contamination caused by the Norfolk Southern Chemical Spill and Fires in 2023. *Institute for Sustainable Future Seminar*. March 27, 2024. Purdue University, West Lafayette, Indiana.
137. ***Whelton, AJ,** Water Systems Disaster Response. *Seminar for California State University System Pomona*. April 9, 2024. Orlando, Florida.
138. ***Whelton, AJ.** Pipe Repairs Cause Toxic Indoor Air: A Paradigm Shift is Needed. Seminar for the I-BREATHE NSF Consortium. April 24, 2024. Virtual.
139. ***Whelton, AJ.** Scientific Rigor for Chemical Disaster Response: Opportunities for Impact. Gordon Research Conference: Environmental Sciences. June 2024. Holderness, New Hampshire.
140. ***Whelton, AJ.** Water, Wildfires, and Wisdom. Webinar for the American Water Works Association (AWWA). July 17, 2024. [Virtual]
141. ***Whelton, AJ.** Making decisions after wildfires just became easier. September 10, 2024. *EOCP EOtec24 conference*. Vancouver, BC Canada. [Virtual]
142. **Whelton AJ.** How Wildfires Can Contaminate Your Drinking Water and Wastewater. Indiana Partners for Pollution Prevention Conference. September 27, 2024. Indianapolis, Indiana.
143. ***Coelho, P., Whelton AJ.** Environment and property contamination from the Norfolk Southern chemical spill and fires in East Palestine, Ohio. September 10, 2024. *EOCP EOtec24 conference*. Vancouver, BC Canada. [Virtual]
144. **Whelton AJ.** Mitigation of Wildfire Damage to Drinking Water Systems. Underwriters Laboratories Research Institute Annual Meeting. October 1, 2024. Atlanta, Georgia.
145. **Whelton AJ.** American Fires. Georgia Tech. October 2, 2024. Atlanta, Georgia.
146. **Whelton AJ.** Experience Making Decisions to Protect Health and Restore Drinking Water Infrastructure to Safe Use after Contamination Incidents. U.S. Army Public Health Command Emergency Exercise. November 19, 2024. Joint Base Lewis-McChord, Washington [Virtual]
147. ***Whelton AJ.** Damage Assessment and Restoration Activities for Water Systems After Wildfires. Webinar for Metropolitan Water District of Southern California and Water Utilities Impacted by the 2025 Los Angeles Area Fires. January 15, 2025. [Virtual]
148. ***Whelton AJ.** Concept of Operations Plan (CONOPS) for Water Distribution System Testing and Recovery. *California-Nevada American Water Works Association Webinar*. January 23, 2025. [Virtual]
149. ***Whelton AJ.** The Disaster Playbook: Towards wildfire resilient infrastructure and public safety. March 21, 2024. Imperial College, London, England.
150. ***Whelton AJ.** Lessons for Improved Wildfire Disaster Response and Current Knowledge Gaps. U.S. National Academies of Science, Engineering, and Medicine: Forum on Medical & Public Health Preparedness for Disasters and Emergencies. March 26, 2024. Washington, D.C.
151. ***Whelton AJ.** Rising to the Challenge for Safer and Resilient Communities. *AWWA California – Nevada Section Annual Conference*. April 9, 2025. Anaheim, California.
152. ***Whelton AJ.** Transforming Community Resilience through Fundamental Discovery and Engagement. May 20, 2025. California Institute of Technology. Pasadena, California.
153. ***Whelton AJ.** Transforming Community Resilience with Partnerships and Strategy: Research for Impact. *AWWA Annual Conference and Exposition*. June 9, 2025. Denver, Colorado.
154. ***Whelton AJ.** Post-Wildfire Distribution System Water Quality Impacts and Potential Responses. *AWWA Annual Conference and Exposition*. June 9, 2025. Denver, Colorado.
155. ***Whelton AJ.** In the Face of Fire: Solutions to Understanding and Preventing Infrastructure Damage. *AWWA Annual Conference and Exposition*. June 9, 2025. Denver, Colorado.
156. ***Whelton AJ,** *Bollens E. Recommendations for Post-Fire Building Sampling, Testing, and Remediation. *Fire and Smoke Commission, California Department of Insurance*. October 14, 2025. [Virtual]
157. ***Whelton AJ.** Every Second Counts: The Future of Public Safety. Seminar. Department of Earth and Planetary Sciences, Purdue University. January 15, 2026. West Lafayette, Indiana.

158. ***Whelton AJ.** Transforming Water Utility and Community Resilience at the Water-Fire Interface. National Water Research Institute (NWRI) Clarke Prize Workshop. January 21-22, 2026. Los Angeles, California.
159. ***Whelton AJ.** Research to Advance Public Safety and Health Protection. University of Polytechnica Catalonia. March 12, 2026. Barcelona, Spain.
160. ***Whelton AJ.** Fire-Caused Environmental Contamination. Imperial College. March 20, 2026. London, England.
161. ***Whelton AJ.** Time and Trust Matter: Science for Public Safety Decisions. Seminar. Seminar. Department of Civil and Environmental Engineering. Tufts University. March 27, 2026. Boston, Massachusetts.
162. ***Whelton AJ.** *Systems Coordination, Research, and Recovery Innovation: Wildfire Recovery, Adaptation, and Long-Term Health Impacts.* U.S. National Academies for Science, Engineering and Medicine. Forum for Medical & Public Health Preparedness for Disasters and Emergencies. June 15, 2026. Webinar.
163. **[INVITED] *Whelton AJ.** *Health Officer Lessons on Public and Occupational Health Guidance after Fires.* California Conference of Local Health Officers. September 22, 2026. Chico, California.

The invited keynote presentations with the National Academies of Science, Engineering, and Mathematics and industry meetings are listed in the ENGAGEMENT SECTION.

Contributed conference/symposium presentations

1. ***Whelton, AJ^G**, Dietrich, AM. Temperature Effects on Drinking Water Odor Perception. *AWWA Water Quality Technology Conference*. Nashville, Tennessee. November 2001.
2. ***Whelton, AJ.** Force Health Protection on the Battlefield and in Garrison, Water System Security. *Society of American Military Engineers Annual Conference*. Baltimore, Maryland. 2004.
3. ***Whelton, AJ.** Customers as Distribution Sentinels. *AWWA Annual Conference and Exposition*. Orlando, Florida. June 2004.
4. ***Whelton, AJ^G**, Dietrich, AM, Tanko, JM. Degradation of High Density Polyethylene due to Oxygen and Chlorine Compounds. *Seminar Series Macromolecular Interfaces with Life Sciences (MILES) Program*. Virginia Tech. Blacksburg, Virginia. 2005.
5. ***Whelton, AJ^G**. How Important is the Taste of Minerals to Consumers? *7th International Water Quality Assoc. Symposium for Off-Flavours in the Aquatic Environment*. Cornwall, Connecticut. 2005.
6. ***Whelton, AJ^G**. Drinking Water: Complaints, Polymers, and Oxidants. *Macromolecular Interfaces with Life Sciences (MILES) Program, Virginia Tech*, Blacksburg, Virginia. 2005.
7. ***Whelton, AJ^G**. Utilities and Consumers: Strategies to Assess, Manage, and Respond to Public Perception Issues. *AWWA Annual Conference and Exposition*. San Antonio, Texas. June 2006.
8. ***Whelton, AJ.** Choosing Which Emergency Exercise is Right for You, You Have Three Options. *AWWA Water Security Congress*. Washington, D.C. 2006.
9. ***Whelton, AJ^G**. Evaluating Contaminant Interaction, Degradation, and Leaching of Personal Hydration Systems. *Macromolecular Interfaces with Life Sciences (MILES) Program*. Virginia Tech. Blacksburg, Virginia. 2006.
10. ***Whelton AJ^G**. Pilot Study for the Integration of Customer Feedback into Online Early Warning Systems. *AWWA Customer Service Conference*. Austin, Texas. 2007.
11. ***Whelton, AJ^{PD}**, Dietrich AM, Gallagher DL. *Poster:* Sustainable Polyethylene Water Infrastructure: Contaminant Diffusivity and Solubility in New and Chlorine Exposed Pipe. *AEESP Biannual Conference*. University of Iowa, Iowa City, Iowa. July 26–29, 2009.
12. ***Whelton, AJ^{PD}**. *Poster:* Building a Postdoctoral Association from the Ground-Up: Commitment, Challenges, and Resolution. *National Postdoc Association Conference*. Philadelphia, Pennsylvania. April 2010.
13. ***Whelton, AJ.** *Plastics 101: Basic Knowledge for Every Civil Engineer.* *ASCE Alabama Section Annual Conference*. Orange Beach, Alabama. July 27–29, 2011.
14. ***Whelton, AJ.** Chemical Leaching from Plastic Water Pipe, A Global Perspective. *Alabama / Mississippi AWWA Annual Conference*. Biloxi, Mississippi. October 2–4, 2011.
15. ***Greifenstein, M^G, Whelton, AJ, Stoner, C, Stubner, A, White, D.** *Poster:* An Investigation Into The Effects Of Temperature and Storage Time On Military Packaged Water In Afghanistan– The Liberation And Migration Of Potential Contaminants From Expeditionary Water Packaging System Polyethylene Terephthalate Water Bottles. *Uniformed Services of the Health Sciences University (USHUS) Research Day*. Bethesda, Maryland. May 11, 2012.
16. ***Webb, AJ, Whelton, AJ.** 2012. Engaging Scientists and Engineers through Immersive Learning. *South Alabama Teaching and Learning Conference*. Mobile, Alabama. March 2012.
17. ***Whelton, AJ.** Nanoparticle Release from Food and Water Contact Materials: Addressing Safety Concerns. *American Chemical Society Annual Meeting*. Environmental Chemistry Division. Philadelphia, Pennsylvania. August 22, 2012.
18. ***Whelton, AJ.** Standard Test Method for Environmental Impacts of Stormwater Infrastructure Rehabilitation Materials. *Virginia Department of Transportation*. Charlottesville, VA. September 2012.

19. *Tabor, M^G, Salehi, M^{PD}, Estaba, J^{UG}, **Whelton, AJ**. Influence of Infrastructure Rehabilitation Liners on Rinse Water Quality: Polymer Enhanced Cement Mortar and Polyurea Liners. *Alabama Water Resources Conference*. Orange Beach, Alabama. September 6, 2012.
20. *Tabor, M^G, Kelley, K^G, Salehi, M^{PD}, Estaba, J^{UG}, Colmenarez, E^{UG}, **Whelton, AJ**. *Poster:* Polymer Potpourri: Water Quality Impacts caused by Polymeric Water Infrastructure Materials. *Alabama / Mississippi AWWA Conference*. Mobile, Alabama. October 14–16, 2012.
21. *Allen, R^G, *Marr, C^G, Erdman, C^G, Dulaney, B^E, Lucas, I^G, Thomley, K^G, Webb, BM, **Whelton, AJ**. *Poster:* Spatial Variability of Water Quality Near MAWSS Pump Station Intake at J.B. Converse Reservoir. *Alabama / Mississippi AWWA Conference*. Mobile, Alabama. October 14–16, 2012.
22. ***Whelton, AJ**, Stenson, A, Waddell, K^{UG}, Nguyen, T^{UG}, Kelley, K^{UG}, Patel, J^{UG}, Colmenarez, E^{UG}, Estaba, J^{UG}. Determination of Contaminants Responsible for THM Formation by Examining a Lake Water's Natural Organic Matter Composition. *Alabama / Mississippi AWWA Conference*. Mobile, Alabama. October 2012.
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65. **Whelton, AJ**. Key Decisions during Drinking Water Contamination Incident Investigations and Recovery. *Indiana AWWA Annual Conference and Exposition*. Indianapolis, Indiana. January 30–February 2, 2016.
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86. ***Whelton, AJ**. Plastics in Water Infrastructure Repair and New Construction, Thinking Forward. *Flint Water Summit*, Flint, Michigan. March 7–9, 2017.
87. Conkling, EN^{UG}, Teimouri, M^G, *Ra, K^G, Whelton, AJ. “Poster”: Developing Methods to Characterize Cured-in-Place Pipe (CIPP). *Summer Undergraduate Research Fellowship (SURF) Symposium*. Minority Serving Institution Outreach Program, Purdue University, West Lafayette, Indiana. March 26, 2017.
88. *Huang, XN^G, Zhao, S^G, Abu-Omar, MM, **Whelton, AJ**. “Poster”: Application of biomass derived ligand to remove heavy metals from contaminated plastic drinking water pipe. *Office of Interdisciplinary Graduate Programs (OIGP) Spring Poster Session*, Purdue University, West Lafayette, Indiana. May 3, 2017.
89. ***Whelton, AJ**. Lawyers, A Federal Agency, and Catalyzed Research: The West Virginia Chemical Spill 3 Years Later. *AEESP Biannual Conference*. Ann Arbor, Michigan. June 20–22, 2017.
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93. ***Whelton, AJ**, Salehi, M^G, Abouali, M, Wang, M^G, Zhou, Z, Nejadhashemi, AP, Mitchell, J, Caskey, S^G. Water Chemistry and Microbiology Changes as Plumbing Ages. *Society of Risk Analysis Conference*. Alexandria, Virginia. December 10–14, 2017.
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95. *Ra, K, Teimouri, Sendesi, SM^G, Donaldson, B, **Whelton, AJ**. CIPP and Spray-On Liner Culvert Rehabilitation: CIPP and Spray-On Liner Culvert Rehabilitation: A Review of Water Quality Impacts and Current Construction Specifications. *Transportation Research Board Annual Conference*. Washington, D.C. January 8, 2018.
96. *Ra, K, Teimouri Sendesi, SM^G, Howarter, J, Jafvert, CT, Donaldson, B, **Whelton, AJ**. *Poster:* Understanding and Reducing Impacts of Storm Water Culvert Rehabilitation Technologies to the Environment. *Indiana AWWA Annual Conference*. Indianapolis, Indiana. January 24, 2018.
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98. *Wang, T^G, Kim, J^G, Whelton, AJ. *Poster:* Flint Water Crisis: Management of Plastic Bottle and Filter Waste. *AEESP Distinguished Lecture and Purdue University Conference*. West Lafayette, Indiana. February 2, 2018.
99. *Salehi, M^{PD}, Jafvert, JT, Howarter, JA, Whelton, AJ. *Poster:* Investigation of the Factors that Influence Lead Accumulation onto Polyethylene: Implication for Potable Water Plumbing Pipes. *AEESP Distinguished Lecture and Purdue University Conference*. West Lafayette, Indiana. February 2, 2018.
100. *Wang, T^G, Kim, J^G, Whelton, AJ. Flint Water Crisis: Management of Plastic Bottle and Filter Waste. *Global Waste Management Symposium*. Indian Wells, California. February 11–14, 2018.
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103. *Ra, K^G, Teimouri Sendesi, SM^G, Howarter, J, Jafvert, CT, Donaldson, B, **Whelton, AJ**. Limiting CIPP and Spray-On Liner Culvert Rehabilitation Water Quality Impacts and Construction Specifications. *Joint Transportation Research Program Roads School Conference*. West Lafayette, Indiana. March 5–8, 2018.
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106. Salehi, M^{PD}, Abouali, M^{PD}, Mitchell, J, Nejadhashemi, AP, Wang, M^G, Zhou, Z, **Whelton, AJ**. The Link Between Fixture Water Use and Drinking Water Quality at a Net Zero Energy Residential Building. *American Water Works Association Annual Conference and Exposition*. Las Vegas, Nevada. June 12, 2018.
107. Odimayomi, T^G, Salehi, M^{PD}, Ley, C^G, Mitchell, J, Beecher, J, Rose, J, Lee, J, Nejadhashemi, PA, Dreelin, E, Gim, Aw T, Shah, A, Syal, M, Singh, G^{PD}, Julien, R^G, Dean, K^G, Kropp, I^G, **Whelton, AJ**. Monitoring Drinking Water Chemical Quality Changes at a Residential Net Zero Energy Building. *American Water Works Association Annual Conference and Exposition*. Las Vegas, Nevada. June 13, 2018.
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110. Ley, C^G, Salehi, M^{PD}, **Whelton, AJ**. *Poster*: Microbial Community Structure Changes as a Building Transitions Between In-Situ Rainwater Treatment and Municipal Drinking Water. *American Water Works Association Annual Conference and Exposition*. Las Vegas, Nevada. June 13, 2018.
111. Salehi, M^{PD}, Ley, C^G, Robinson, P, Sturgis, J, **Whelton, AJ**. *Poster*: Monitoring water organism loads using laser based elastic light scatter technology. *American Water Works Association Annual Conference and Exposition*. Las Vegas, Nevada. June 13, 2018.
112. Mitchell, J, **Whelton, AJ**. Predicting Drinking Water Safety Inside Buildings in a Technology Changing World. *National Environmental Health Association Annual Education Conference*. Anaheim, California. June 27, 2018.
113. Shannahan, J, **Whelton, AJ**. Occupational, Public Health, and Environmental Concerns: Chemical Emissions from Sanitary Sewer and Storm Sewer Water Pipe Repairs. *National Environmental Health Association Annual Education Conference*. Anaheim, California. June 26, 2018.
114. Rininger, E^{UG}, **Whelton, AJ**, Odimayomi, T^G, Salehi, M. *Poster*: Indoor Premise Plumbing: The Relationship Between Water Stagnation, Chlorine Decay, and Total Organic Carbon Levels. *Purdue University Summer Undergraduate Research Symposium*. West Lafayette, Indiana. August 2, 2018.
115. Tariq, M^{UG}, Ley, C^G, Salehi, M, **Whelton, AJ**. Short-term organic carbon release and chlorine disinfectant decay for crosslinked polyethylene (PEX) plumbing pipes. *Purdue University Summer Undergraduate Research Symposium*. West Lafayette, Indiana. August 2, 2018.
116. Ley, C^G, Aw, TG, Ra, K^G, Odimayomi, T^G, Salehi, M, Singh, G^{PD}, **Whelton, AJ**. Examining Variation In Microbial Drinking Water Metrics in A Net-Zero Water Building. *American Water Works Association Water Quality Technology Conference*. Toronto, Canada. November 11–15, 2018.
117. **Whelton, AJ**. Maximizing the Benefits of Culvert Lining By Minimizing Chemical Emission. *Transportation Research Board Annual Conference*. Washington, D.C. January 14, 2019.
118. Jafvert, CJ, **Whelton, AJ**. Evidence-Based Practices for Successful Lining Projects. *Transportation Research Board Annual Conference*. Washington, D.C. January 14, 2019.
119. Wang, QE^{UG}, Huang, X^G, Ra, K^G, Odimayomi, T^G, **Whelton, AJ**. *Poster*: Heavy Metal Deposition onto New PEX and CPVC Pipes. *Indiana Section American Water Works Association Annual Conference*. Indianapolis, Indiana. January 2019.
120. **Whelton, AJ**, Shannahan, J. Evaluation of the Health Risks Associated with Emissions from the Cured-In-Place Pipe Procedure. *Health Sciences Seminar Series, Purdue University*. West Lafayette, Indiana. April 2019.
121. **Whelton, AJ**, Shah, AD, Yu, D, Proctor, C^{PD}. After the Wildfire: Response and Recovery to Large Scale Infrastructure Damage in Paradise, California. *EEE Graduate Seminar, Purdue University*. West Lafayette, Indiana. April 2019.
122. Proctor, C^{PD}, **Whelton, AJ**, Shah, AD, Yu, D. After the Wildfire: Responding to and Recovering from Large-Scale Infrastructure Damage in Paradise, California. *25th EES Symposium at University of Illinois at Urbana-Champaign (UIUC)*. Urbana-Champaign, Illinois. April 2019.
123. Lee, J, Mitchell, J, Nejadhashemi, P, **Whelton, AJ**. Development of Premise Plumbing's Integrated Hydraulic and Water Quality Modeling. *ASCE World Environmental & Water Resources Congress*. Pittsburg, Pennsylvania. May 2019.
124. Kobos, L^G, Teimouri Sendesi, SM^G, Whelton, AJ, Shannahan, J. Assessment of Cured-In-Place Pipe Worksites Emissions and Toxicity. *Society of Toxicology Conference*. Baltimore, Maryland. May 2019.
125. Wang, QE^{UG}, Huang, X^G, Ra, K^G, Odimayomi, T^G, **Whelton, AJ**. *Poster*: An Initial Comparison of Heavy Metal Deposition onto New PEX and CPVC Pipes. *American Water Works Association Annual Conference and Exposition*. Denver, Colorado. June 2019.
126. Odimayomi, T^G, Noh, Y^G, Dasika, S^G, Shah, AD, **Whelton, AJ**. *Poster*: Disinfectant Byproduct Generation within Residential Building Plumbing. *American Water Works Association Annual Conference and Exposition*. Denver, Colorado. June 2019.

127. Ra, K^G, Odimayomi, T^G, Ley, C^G, Aw, TG, **Whelton, AJ**. Drinking Water Quality Changes at a Middle School Under Low vs. Normal Water Use Conditions. *American Water Works Association Annual Conference and Exposition*. Denver, Colorado. June 2019.
128. Ley, CJ^G, **Whelton, AJ**, Freeman, JL. A Chemical Mixture Conundrum: Leaching & Toxicological Assessment of Water in Contact with Crosslinked Polyethylene (PEX) Pipes. *American Water Works Association Annual Conference and Exposition*. Denver, Colorado. June 2019.
129. Salehi, M, **Whelton, AJ**. The Relationship between Drinking Water Quality in a Single Family Home and the Service Line. *American Water Works Association Annual Conference and Exposition*. Denver, Colorado. June 2019.
130. **Whelton, AJ**. Lessons from public, industry, and media engagement: Infrastructure repairs, safety, and the environment. *AEESP Biannual Conference*. Phoenix, Arizona. June 2019.
131. Odimayomi, T^G, Noh, Y^G, Dasika, S^G, Shah, AD, **Whelton, AJ**. *Poster*: Formation of Disinfectant Byproducts within a Residential Premise Plumbing System. *AEESP Biannual Conference*. Phoenix, Arizona. June 2019.
132. Noh, Y^G, Troy, CD, Jafvert, CT, Boor, BE, **Whelton, AJ**. *Poster*: Indoor Air Contamination: The entry of cured-in-place-pipe (CIPP) contaminants into buildings through plumbing trap blowback and other pathways. *AEESP Biannual Conference*. Phoenix, Arizona. June 2019.
133. Ley, CJ^G, **Whelton, AJ**, Freeman, JL. *Poster*: Leaching and Toxicological Assessment of Drinking Water in Contact with Crosslinked Polyethylene (PEX) Pipes. *AEESP Biannual Conference*. Phoenix, Arizona. June 2019.
134. Ra, K^G, Odimayomi, T^G, Ley, C^G, Aw, TG, **Whelton, AJ**. Lessons Learned from an Intensive Investigation at a 7-Year Old LEED School. *AEESP Biannual Conference*. Phoenix, Arizona. June 2019.
135. Salehi, M, Odimayomi, T^G, Ley, C^G, Ra, K^G, Huang, X, Dasika, S, **Whelton, AJ**. Tap Water Quality at a Residential Green Building: Intensive One-Year Monitoring Study. *Kentucky/Tennessee Water Professionals Conference*. Louisville, Kentucky. August 2019.
136. Ley, C^G, Wasel, O^G, Freeman, J, Whelton, AJ. *Poster*: Leaching and Toxicological Assessment of Drinking Water in Contact with Cross-linked Polyethylene (PEX) Pipes. Center for the Environment Meeting. Purdue University, West Lafayette, IN. October 2019.
137. Edwards, E^{UG}, Proctor, C^{PD}, Shah, A, **Whelton, AJ**. *Poster*: Efficacy of Activated Carbon Pitcher Filters in Elevated Benzene Removal. *Center for the Environment Symposium*. Purdue University, West Lafayette, Indiana. October 2019.
138. Wang, E^{UG}, Odimayomi, T^G, Ley, C^G, Noh, Y^G. Public Engagement after the Most Destructive and Deadliest Wildfire in California's History: Drinking Water and Plumbing Safety. *Purdue University Undergraduate Research Symposium*. West Lafayette, Indiana. November 18, 2019.
139. [Accepted, meeting cancelled due to pandemic] 7 poster and oral presentations at the AWWA ACE conference in Orlando, Florida. June 2019 with 6 students and 1 postdoc about CIPP and building water systems.
140. [Accepted, meeting cancelled due to pandemic] 3 oral presentations at the *National Environmental Health Association Annual Educational Conference and Exhibition*. New York City, New York. July 13–16, 2019 with 1 student about CIPP and disaster response to building water systems.
141. Wang, E^{UG}, Odimayomi, T^G, Ley, C^G, Noh, Y^G, **Whelton, AJ**. Camp Fire Drinking Water and Plumbing Safety. *Indiana AWWA Annual Conference*. Indianapolis, Indiana. January 28, 2020.
142. Odimayomi, T^G, Proctor, C^{PD}, Sabbaghi, A, Wang, E^{UG}, Peterson, K, Yu, D, Lee, J, Shah, AD, **Whelton, AJ**. Perceptions and Experiences from Survivors of the 2018 Camp Fire Drinking Water Contamination Disaster in Butte County, California. *Indiana AWWA Annual Conference*. Indianapolis, Indiana. January 28, 2020.
143. *Proctor, C^{PD}, **Whelton, AJ**. Drinking Water After Wildfire: Network Contamination and Community Impacts. *University of Michigan Borchardt Conference*. Ann Arbor, Michigan. February 25, 2020.
144. Edwards, E^{UG}, Proctor, C^{PD}, Shah, AD, **Whelton, AJ**. Efficacy of Activated Carbon Pitcher Filters in Elevated Benzene Removal. *University of Michigan Borchardt Conference*. Ann Arbor, Michigan. February 25, 2020.
145. ***Whelton, AJ**. Moving Towards Predicting Building Water Safety: Plumbing Design, Use, and Disasters. *IAPMO Emerging Water Technology Symposium (EWTS)*. San Antonio, Texas. May 12–13, 2020.
146. ***Whelton AJ**, Shah, AD. Wildfires Directly Impact Water Quality: Discoveries and Opportunities. Water Palooza. December 3, 2020.
147. *Noh, Y^G, Boor, BE, Jafvert, C, Troy, C, **Whelton, AJ**. Modeling styrene intrusion pathways into buildings during cured-in-place-pipe (CIPP) installation and its safety evaluation. *Society of Risk Analysis Conference*. Austin, Texas. December 13-17, 2020.
148. *Montagnino E^G, Proctor CR, Ley CJ^G, Ra K^G, **Whelton AJ**. Over the weekend: Normal office building water stagnation prompts drinking water copper exceedances. *ACS Spring Meeting*. April 5, 2021. Virtual Online.
149. *Palmegiani M^G, **Whelton, AJ**, Lee J. New Developments in Premise Plumbing: Hydraulic and Water Quality Modeling. June 7-11, 2021 World Environmental and Water Resources (EWRI) Congress. Virtual Online.
150. ***Whelton AJ**. Disaster Public Health Decisions for Drinking Water Systems Contamination. NEHA Annual Educational Conference. June 2021. Virtual.
151. *Gustafson L^{UG}, Jankowski C^G, Proctor C, Ley C^G, Montagnino E^G, Isaacson K^G, Shah A, Maiga N^{UG}, **Whelton AJ**. *Poster*: Investigating the impact of water softeners on building drinking water and wastewater quality. June 16, 2021. AWWA ACE 2021. Virtual.

152. *Day R^{UG}, Ra K^G, Montagnino E^G, Golden A^{UG}, Ley C^G, Proctor C, **Whelton AJ**. *Poster*: Towards Standard Procedures for Building Water System Flushing Plans: Field Experience, Knowledge-Gaps, and Recommendations. June 16, 2021. AWWA ACE 2021. Virtual
153. *Palmegiani M^G, AJ Whelton, Lee J, *Poster*: New Developments in Premise Plumbing: Integrated Hydraulic and Water Quality Modeling. June 16, 2021. AWWA ACE 2021. Virtual.
154. Isaacson K^{*}, Shah A, Proctor C, Edwards E^{UG}, Wang E^{UG}, Noh Y^G, **Whelton AJ**. Drinking Water Contamination from Thermal Degradation of Plastics. June 16, 2021. AWWA ACE 2021. Virtual.
155. ***Whelton AJ**. Water safety attitudes, risk perception, experiences, and education for households impacted by the 2018 Camp Fire. June 18, 2021. NACCHO AEC 2021. Virtual.
156. ***Whelton AJ**. Considerations for returning plumbing to safe use after its been chemically contaminated. June 18, 2021. NACCHO AEC 2021. Virtual.
157. *Isaacson K^G, Shah A, Proctor C, Edwards E^{UG}, Wang E^{UG}, Noh Y^G, **Whelton AJ**. Water Contamination by Thermally Degraded Plastic Drinking Water Pipes. June 18, 2021. NACCHO AEC 2021. Virtual.
158. ***Whelton AJ**, Noh Y^G, Shannahan J. Neighborhood HAZMAT Incidents Caused by the Sewer Pipe Repair Practice. NACCHO AEC. June 22, 2021. Virtual.
159. *Noh Y^G, Shannahan J, **Whelton AJ**. Emergency responder and public health considerations for plastic sewer lining chemical waste exposures in indoor environments. NACCHO AEC. June 22, 2021. Virtual.
160. *Ra K^G, **Whelton AJ**. Case study - School water testing revealed widespread copper and legionella contamination – What to do next? NACCHO AEC. July 1, 2021. Virtual.
161. *Angert D^{UG}, **Whelton AJ**, Proctor CP. Case study – Chemical and microbiological water safety in a large residential building that was shutdown for the Summer 2020. NACCHO AEC. July 1, 2021. Virtual.
162. ***Whelton AJ**, Proctor C, Ley C^G, Ra K^G, Angert D^{UG}, Montagnino E^G, Noh Y^G, Palmegiani M^G, Day R^{UG}, Golden A^{UG}. Some results and reflections: Water quality during reduced occupancy due to COVID-19 and select intervention methods. *Building Water SLAM*. July 7, 2021. Virtual.
163. ***Whelton AJ**. Building Water Safety: New Developments and Resources. NEHA AEC. July 14, 2021. Virtual.
164. Del Real K^{UG}, Jankowski C^G, Proctor C, ***Whelton AJ**. Chlorine decay in residential water softeners. *Purdue University Summer Undergraduate Research Forum*. July 30, 2021. Virtual.
165. ***Whelton AJ**. Wildfires Contaminate Drinking Water Distribution Systems and Building Plumbing. University of Alaska's Foundations for Improving Resilience in the Energy Sector Against Wildfires on Alaskan Lands (FIREWALL) Workshop, Research Directions in Wildfire Resilience Session. September 15, 2021. Virtual.
166. Morales, AC^G, Tomlin, J^G, Noh, Y^G, **Whelton, AJ**, Laskin A. Discovery of atmospheric microplastics in urban emissions. *Submitted 2022 PacificChem Conference*. Honolulu, Hawaii.
167. Morales, AC^G, Tomlin, J^G, West CP, Rivera-Adorno F, Noh, Y^G, Moffet RC, China S, O'Callahan BT, El-Khoury PZ, **Whelton, AJ**, Laskin A. Comprehensive Chemical Characterization of Nanoplastic Particles from Urban Emission Source. *Analytical Chemistry Conference*. Turkey Run, IN. September 2021.
168. **[INVITED] *Whelton AJ**. Repairing damaged sewers with cured-in-place-pipe sewer lining. US EPA Region 5 and Partners Vapor Intrusion Meeting. Virtual. November 8, 2021.
169. *Jankowski C^G, Isaacson K^G, Pieper JP^{UG}, Del Real K^{UG}, Gustafson L^{UG}, Shah AD, **Whelton AJ**. Water Softener Hydrocarbon Contamination and Decontamination by Flushing. Indiana AWWA Annual Conference. Indianapolis, Indiana. April 11-14, 2022.
170. ***Whelton, AJ**, Seidel C, Wham B, Fischer E. Response of Large Water Utilities to the Marshall Wildfire. NSF CONVERGE FORUM. National Hazards Research Center. Virtual. February 17, 2022.
171. *Gustafson L^{UG}, Jankowski C^G, Del Real K^{UG}, Palmegiani M^G, Larsen M^G, Ra K^G, Ehde A^G, Noh Y^G, Proctor CR, **Whelton AJ**. When You Install a New Water Softener, How Much Chemical Does it Leach into Your Drinking Water? *Indiana AWWA Annual Conference*. Indianapolis, Indiana. April 12, 2022.
172. ***Whelton AJ**. Water Contamination Response and Recovery: Lessons from the Field and Gaps You should Expect. *Indiana AWWA Annual Conference*. Indianapolis, Indiana. April 12, 2022.
173. ***Whelton, AJ**, Isaacson K^G, Jankowski C^G, Larsen M^G. Challenges responding to and recovering from the Marshall Fire by small drinking water systems and private well owners. NSF CONVERGE FORUM. National Hazards Research Center. Virtual. Apr 28, 2022.
174. **[INVITED] *Whelton, AJ**. Legionella management in potable water systems, especially low flow systems. Webinar: Legionella and Its Impacts on Public and Occupational Health: Why the Water Sector Should Care. Water Environment Federation (WEF). April 28, 2022.
175. **[INVITED] *Whelton, AJ**. Plumbing safety under routine and disaster conditions: New Research. IAPMO EWTS. San Antonio, Texas. May 10-11, 2022.
176. **[INVITED] *Whelton, AJ**. Webinar: Wildfires and their Effects on Drinking Water Systems. Canadian Interior Health Authority. May 17, 2022. Available at <https://youtu.be/avUUhTvueew>.
177. ***Whelton, AJ**. Wildfires - Heat Damaged Plastic Pipes as Generators of Drinking Water Contamination? National Fire Protection Association (NFPA). Boston, Massachusetts. June 6-9, 2022.
178. ***Whelton, AJ**. What to Expect when Responding to Sewer Pipe Repair Sites Where Plastic is Being Cooked. National Fire Protection Association (NFPA). Boston, Massachusetts. June 6-9, 2022.

179. *Noh Y^G, **Whelton, A.J.** KEY to Chemical Exposure from New Plastic Lining Manufacture: Understanding the CIPP Wastes and Public Health Communication. *American Water Works Association (AWWA) annual conference and exposition*. San Antonio, Texas. June 12-16, 2022.
180. ***Whelton, A.J.** Outdoor Plastic Liner Manufacturing for Water and Sewer Repairs: Chemical Exposure and Safety Lessons. *American Water Works Association (AWWA) annual conference and exposition*. San Antonio, Texas. June 12-16, 2022.
181. *Isaacson K^G, Shah, AD, **Whelton, A.J.** Post-Wildfire Drinking Water Contamination from Thermal Degradation of Plastics. *American Water Works Association (AWWA) annual conference and exposition*. San Antonio, Texas. June 12-16, 2022.
182. **Whelton, A.J.** Post-Wildfire Distribution System Water Quality Impacts and Potential Responses - WaterRF Project 5106. *American Water Works Association (AWWA) annual conference and exposition*. San Antonio, Texas. June 12-16, 2022.
183. *Noh, Y^G, **Whelton A.J.** Plastic Pollution and Potential Human Health Impacts - Results from Plastic Lining Technology. AEESP conference. St. Louis, Missouri. June 28-30, 2022.
184. *Ehde A^G, Larsen M^G, Jankowski C^G, Ley CJ^G, Palmegiani M^G, Fleming C^{UG}, Schmidt W, **Whelton AJ**, Proctor CR. Drinking Water Quality as a Function of Stagnation in Controlled Pilot-Scale Systems. AEESP conference. St. Louis, Missouri. June 28-30, 2022.
185. *Larsen M^G, Noh Y^G, Palmegiani M^G, Proctor CR, **Whelton AJ**. Impact of Epoxy Manufacturing and Installation Conditions on Drinking Water Quality. AEESP conference. St. Louis, Missouri. June 28-30, 2022.
186. *Ra K^G, Ley C^G, Montagnino E^G, Angert D^{UG}, Proctor CR, **Whelton AJ**. Stagnation Impact on Building Drinking Water Safety: Pandemic and microplastics. AEESP conference. St. Louis, Missouri. June 28-30, 2022.
187. *Gustafson L^{UG}, Jankowski C^G, Del Real K^{UG}, Palmegiani M^G, Larsen M^G, Ra K^G, Isaacson K^G, Pieper JP^{UG}, Ehde A^G, Shah AD, Proctor CR, **Whelton AJ**. The Impact of New Water Softeners on Drinking Water Quality and their Recovery after Hydrocarbon Contamination. NEHA AEC. Spokane, Washington. June 28–July 1, 2022.
188. ***Whelton AJ**, Isaacson K^G, Shah AD. After the Fire: How Can We Determine if the Drinking Water at the Faucet is Safe? NEHA AEC. Spokane, Washington. June 28–July 1, 2022.
189. *Ra, K., Ley, C., Montagnino, E. Angert, D., Proctor, C.R., **Whelton, A.J.** Stagnation Impact on Building Drinking Water Safety: Pandemic and microplastics. *Association of Environmental and Ecological Science Professors biannual conference*. St. Louis, Missouri. June 28-30, 2022.
190. *Noh, Y., **Whelton, A.J.** Plastic Pollution and Potential Human Health Impacts - Results from Plastic Lining Technology. *Association of Environmental and Ecological Science Professors biannual conference*. St. Louis, Missouri. June 28-30, 2022.
191. *Larsen, M., Noh, Y., Palmegiani, M., Proctor, C.R., **Whelton, A.J.** Impact of Epoxy Manufacturing and Installation Conditions on Drinking Water Quality. *Association of Environmental and Ecological Science Professors biannual conference*. St. Louis, Missouri. June 28-30, 2022.
192. *Ehde, A., Larsen, M., Jankowski, C., Ley, C., Palmegiani, M., Fleming, C., Schmidt, W., **Whelton, A.J.**, Proctor, C.R.. Drinking Water Quality as a Function of Stagnation in Controlled Pilot-Scale Systems. *Association of Environmental and Ecological Science Professors biannual conference*. St. Louis, Missouri. June 28-30, 2022.
193. *Diop R^G, Zyaykina N, **Whelton AJ**, Jafvert C, *Poster*: Understanding of Environmental Issues Associated with Air-Cooled Blast Furnace Slag. August 22-25, 2022. American Chemical Society 2022 Fall Meeting, Chicago, IL.
194. ***Whelton AJ**. Disasters & Plumbing Contamination Decisions: Wildfires, Floods, Chemical Spills & More. *American Society of Plumbing Engineers Conference and Exposition*. Indianapolis, Indiana. September 16-21, 2022.
195. ***Whelton AJ**, Mitchell J. A 6 Year USEPA Backed Program: Finding, predicting, and resolving building water system chemical and microbiological contamination. American Public Health Association (APHA) Annual Meeting & Exposition. Boston, Massachusetts. November 7, 2022.
196. ***Whelton AJ**. Public health lessons from drinking water contamination disasters of utility and plumbing: Chemical spills, wildfires, and more. American Public Health Association (APHA) Annual Meeting & Exposition. Boston, Massachusetts. November 9, 2022.
197. ***Whelton AJ**. A Leap Forward: New Tools and Knowledge for Predicting, Finding, and Resolving Building Water System Contamination. *American Water Works Association (AWWA) Water Quality Technology Conference*. Cincinnati, Ohio. November 16, 2022.
198. ***Whelton AJ**. Six-year USEPA backed program: Finding, predicting, and resolving building water system chemical and microbiological contamination. *American Chemical Society Spring Meeting*. Indianapolis, Indiana. March 26-30, 2023.
199. ***Whelton AJ**. New scientific discoveries have made reducing environmental, occupational, and public health risks for polymer composite sewer pipe repairs possible. *American Chemical Society Spring Meeting*. Indianapolis, Indiana. March 26-30, 2023.
200. *Isaacson K, **Whelton AJ**. Public health lessons from drinking water contamination disasters of utility and plumbing: Chemical spills, wildfires, and more. *American Chemical Society Spring Meeting*. Indianapolis, Indiana. March 26-30, 2023.

201. ***Whelton AJ.** A 6 Year USEPA Backed Program: Finding, predicting, and resolving building water system chemical and microbiological contamination. *Indiana American Water Works Association (AWWA) Annual Conference*. Indianapolis, Indiana. April 10-14, 2023.
202. ***Whelton AJ.** Lessons from Chemical Spills and Wildfires. Borchardt Conference. Ann Arbor, Michigan. May 22-24, 2023.
203. ***Whelton AJ.** New scientific discoveries have made reducing environmental, occupational, and public health risks for polymer composite sewer pipe repairs possible. *AEESP*. Boston, Massachusetts. June 20-23, 2023.
204. ***Spearing L, Whelton AJ.** "How is water insecurity experienced after industrial crises? Exploring impacts from the East Palestine chemical spill and fires. *AGU Conference*. 2023.
205. ***Spearing L, Toland J^G, Whelton AJ.** "How is water insecurity experienced after industrial crises? Exploring impacts from the East Palestine chemical spill and fires. *ASCE EWRI Conference*. 2023.
206. ***Whelton, AJ.** Lessons from wildfire response and recovery. *ASCE Annual Conference*. Chicago, Illinois. October 2023.
207. ***Coelho P^G, Whelton, AJ.** Rapid Response to the Norfolk Southern Chemical Spill and Chemical Fires. *ASCE Annual Conference*. Chicago, Illinois. October 2023.
208. ***Pahari, P^G, Spears, S^{UG}, Butler, S^{UG}, Whelton, AJ.** *Poster:* Towards Understanding Drinking Toxicity as Our Infrastructure Transitions to Plastic: Cured-In-Place-Pipe Liners for Drinking Water Quality. *Society of Toxicology – Ohio Valley Chapter conference*. West Lafayette, Indiana. October 27, 2023.
209. ***Whelton AJ.** Improved Decisions to Protect Health After Wildfires Attack Utility and Building Plumbing Drinking Water Infrastructure. *USEPA Decon Conference*. Charleston, South Carolina. December 2023.
210. ***Whelton AJ.** Improved Decisions to Protect Health After Water Utility and Building Plumbing Drinking Water Infrastructure Contamination. *AWWA Indiana Section Annual Conference and Exposition*, Indianapolis, Indiana. February 2023.
211. ***Toland J^G, Whelton AJ., Wukuich C, Spearing L.** Community Perceptions and Experiences related to Household Air, Water, and Soil Testing after the East Palestine Train Derailment. *Engineering Project Organizing Conference*. Bar Harbor, Maine. June 2024.
212. ***Spears, S^{UG}, Pahari, P^G, Butler, S^{UG}, Whelton, AJ.** Rehabilitating Buried Drinking Water Pipes with Cured-in-Place-Pipe: Gaps and Experiences. *AWWA Annual Conference and Exposition*, Los Angeles, California. June 2023.
213. ***Zavodny N^{UG}, Coelho PD^G, Whelton AJ.** The World's On Fire Stepping Up to Protect Public Health and Safety. Summer Undergraduate Research Symposium. Purdue University. July 25, 2024. West Lafayette, Indiana.
214. ***Whitfield P^{UG}, Marcos M^{UG}, Youngblood JP, Whelton AJ.** Investigating Smoke Composition and Dispersion from Wildfire Events and Air Filter Implementation Potential on Water Storage Tanks. Summer Undergraduate Research Symposium. Purdue University. July 25, 2024. West Lafayette, Indiana.
215. ***Marcos M^{UG}, Whitfield P^{UG}, Youngblood JP, Whelton AJ.** An Investigation into the Hydraulics of Wildfire Damage to Water Distribution Systems and Finished Water Storage Tank Vent Filtration Potential. Summer Undergraduate Research Symposium. Purdue University. July 25, 2024. West Lafayette, Indiana.
216. ***Heffner, S^{UG}, Whelton AJ, Proctor, CR.** Sulfide, pH, and Sulfate-Reducing Bacteria Dynamics in Stagnant Plumbing. *AWWA WQTC*. November 20, 2024. Schaumburg, Illinois.
217. ***Spears, S^{UG}, Whelton AJ.** Cured-In-Place-Pipes are Being Used for Drinking Water Pipe Repairs: How Do They Impact Drinking Water Quality? *AWWA WQTC*. November 20, 2024. Schaumburg, Illinois.
218. ***Whelton AJ.** Lessons from Wildfires Attacking Water Utilities: Implications for Engineering, Operations, and Water Quality Professionals. *AWWA WQTC*. November 19, 2024. Schaumburg, Illinois.
219. ***McLatchy L, Shuler CK, Whelton AJ, Giambelluca TW, Comerros M.** Identifying Drinking Water Contamination from Urban Fires In Maui County, Hawaii. Thursday, 12 December 2024. *AGU Conference*. Washington, D.C.
220. ***Chavarria C^{UG}, Ferrarezzi C^G, Babu P^G, Spears S^{UG}, Whelton AJ.** *Poster:* Contamination and Cleaning of Baby Products Exposed to Petroleum Contaminated Drinking Water. *Spring 2025 Undergraduate Research Symposium*. Purdue University. West Lafayette, Indiana.
221. ***Heffner S^G, Whelton AJ.** The Safety of Water in Building Plumbing Under Months Long Stagnation Periods. March 31, 2025. *Indiana AWWA Annual Conference*. Indianapolis, Indiana.
222. ***Spears S^{UG}, Whelton AJ.** Cured in Place Pipe for Drinking Water Use. March 31, 2025. *Indiana AWWA Annual Conference*. Indianapolis, Indiana.
223. **Balance ED^{UG}, Ferrarezzi C^G, Whelton AJ.** *Poster*: Eaton and Palisades: Assessing Post-Wildfire Challenges that Plague the Community. Summer Undergraduate Research Symposium. July 30, 2025. Purdue University, West Lafayette, Indiana.
224. **Wayne K^{UG}, Ferrarezzi C^G, Bollens E, Whelton AJ.** *Poster*: Evaluating Post-Fire Environmental Testing Guidance for Standing Homes: Gaps, Risks, and Recommendations. Summer Undergraduate Research Symposium. July 30, 2025. Purdue University, West Lafayette, Indiana.
225. **Whelton AJ.** New developments from recovery to the Palisades and Eaton Fires. Webinar as part of the After the Fires Series: Soil Safety After the L.A. Wildfires, Debris Removal, and More: What have we learned so far? September 13, 2025. Purdue University, [Virtual]

226. Shuler CK, McLatchy L, **Whelton AJ**, Stufflebean J. How to prevent a water contamination crisis: A data-driven analysis of water utility response following the 2023 Maui wildfires. AGU Conference, New Orleans, LA. December 15-19, 2025.
227. **Whelton AJ**. Rising from Disaster. Community Impact Summit, Purdue University. February 25, 2026. West Lafayette, Indiana.
228. **Whelton AJ**. Discussion about soil testing and remediation with property owners impact by the Palisades and Eaton Fires. March 4, 2026. Purdue University, [Virtual]
229. [Ferrarezzi C^G](#), **Whelton AJ**. How did the 2025 Los Angeles Fires affect the households in terms of water and environmental safety? *AWWA Indiana Section Annual Conference and Exposition*, Indianapolis, Indiana. February 2023.
230. **Whelton AJ**. *Poster*: Fire Recovery Decisions: Evidence-Based Strategies for Property Restoration and More to Support Family and Business Resilience. *Society of Fire Protection Engineers WUI Fire Summit*. College Park, Maryland. August 2026.
231. ***Zakowsky S**, **Whelton AJ**. Health and Safety Hazards: Wildfire/Urban Fire and Considering Returning Water Utility Buildings to Safe Use. *AWWA Water Infrastructure Conference*. September 1, 2026. Indianapolis, Indiana.
232. *[Ferrarezzi CG](#), **Whelton AJ**, Learning From the 2025 LA Fires: How do Households Respond to Drinking Water and Property Safety Concerns? *AWWA Water Infrastructure Conference*. September 1, 2026. Indianapolis, Indiana.
233. **Whelton AJ**. Perspective from the Field: Technology Opportunities in Fire Recovery. *IEEE - Boosting Wildfire Resilience through Technology Innovation Workshop*. September 21, 2026. Broomfield, Colorado.
234. [\[ACCEPTED\]](#) ***Whelton AJ**, Isaacson, KP, Shah, AD, Miller, SG, Liu, YG, Cai H, Ferrarezzi, CG, Thalhamer, T, Spearing, L. From Crisis to CONOPS: Building Evidence-Based Frameworks for Post-Wildfire Property Contamination and Recovery. *Advances on Forest Fire Research – 2026*. Coimbra, Portugal.

4. GRANTS AND CONTRACTS AWARDED

1. Mobile Area Water and Sewer System (MAWSS) / Identification of Big Creek Lake Contaminants Responsible for Drinking Water Disinfectant Byproduct (DBP) Formation at the E.M. Stickney and H.E. Myers Water Treatment Plants, 5/1/11–6/1/12, \$78,000, Role: Principal Investigator, \$78,000, Co–investigators: Alexandra Stenson (Chemistry), University of South Alabama
2. University of South Alabama Faculty Development Council / Impact of PEX Potable Water Plumbing Pipe on Green Building Drinking Water Quality, 5/1/12–5/1/13, \$5,000, Principal Investigator, Co–investigators: None
3. U.S. Environmental Protection Agency Science to Achieve Results (STAR) Program / Dendritic Polymers as Biocompatible Dispersants for Oil Spill Mitigation, 6/1/12–6/1/16, \$500,000, Role: Co-Principal Investigator, \$204,000, Co–investigators: David Ladner (PI overall grant) (Environmental Engineering and Earth Sciences), Clemson University, Pu–Chun Kee (co–PI) (Physics) Clemson University, Sean Powers (co–PI) (Marine Sciences), University of South Alabama
4. U.S. National Science Foundation / Towards a Safer and Greener Indoor Environment: Chemical Liberation from Polyethylene Plumbing Pipes, 9/1/12–8/1/17, \$357,067, Role: Principal Investigator, \$329,000, Co–investigators: Alexandra Stenson (Chemistry), University of South Alabama
5. Virginia Department of Transportation / Standardized Test Method to Quantify Environmental Impacts of Stormwater Pipe Rehabilitation Materials, 10/1/12–8/1/14, \$146,761, Role: Principal Investigator, \$146,761, Co–investigators: Kevin White (co-PI) (Civil Engineering), University of South Alabama, Eric Steward (co-PI) (Civil Engineering), University of South Alabama, Anne Boettcher (co-PI) (Biology), University of South Alabama
6. Southern Company Services, Inc. / Biocide Induced Plastic Pipe Degradation in Energy Generation Cooling Water Systems, 7/1/13–5/1/16, \$50,000, Role: Principal Investigator, \$50,000, Co–investigators: None
7. U.S. National Science Foundation / RAPID GOAL! Chemical Contamination and Remediation of Plastic Drinking Water Infrastructure during the West Virginia American Water Drinking Contamination Incident, 2/7/14–1/15/15, \$69,999, Role: Principal Investigator, \$69,000, Co–investigators: None
8. State of West Virginia Bureau of Public Health / West Virginia Testing Assessment Project: Support for Freedom Industries Chemical Spill Investigation; Subaward for Laboratory and Field Support, Media Engagement, 3/1/14–4/1/14, \$730,000, PI, \$40,000, Co–investigators: None

9. National High Magnetic Field Laboratory, Florida State University, Ion Cyclotron Resonance Program, ICR User Program Environmental and Petrochemical Applications / Ion Cyclotron Equipment Usage Proposal for PEX Pipe Leaching Investigation, 7/1/14–8/1/14, Instrument access; Nationally competitive program, co–PI, proposal/access approved, Co–investigators: Alexandra Stenson (PI overall application) (Chemistry), University of South Alabama
10. American Water Works Association (AWWA) Water Industry Technical Action Fund and Water Research Foundation (WaterRF) / Interaction of Fracking and Crude Oil Contaminants with Water Distribution Pipes, EO 2014–07, 11/1/14–6/1/16, \$50,000, PI, \$50,000, Co–investigators: None
11. Indiana Department of Transportation / Storm Water Pollution and Best Management Practice Guidance for Indiana, 4/1/15–12/1/15, \$35,600, PI, \$35,600, Co–investigators: None
12. U.S. National Science Foundation / RAPID: Chemical Air Emissions from Cured–In–Place–Pipe (CIPP) Activity, 3/1/16–3/1/17, \$49,999, PI, \$49,999, Co–investigators: Brandon Boor (Civil Engineering), Purdue University)
13. U.S. Federal Highway Administration / Contaminant Release from Storm Water Culvert Rehabilitation Technologies: Understanding Environmental and Long–Term Material Integrity Implications, 3/1/16–3/1/19, \$630,000, PI, \$530,000, Co–investigators: John Howarter (co–PI) (Materials Engineering / Environmental and Ecological Engineering), Chad Jafvert (co–PI) (Civil Engineering / Environmental and Ecological Engineering), Jeffrey Youngblood (co–PI) (Materials Engineering), Nadya Zyaykina (co–PI) (Civil Engineering / Environmental and Ecological Engineering). Purdue University
14. Ralph W. and Grace M. Showalter Trust / Formation and Removal of Toxic Disinfection By–Products from Residential and Commercial Plastic Pipes during Drinking Water Distribution, 7/1/16–9/1/17, \$78,000, Co–PI, \$0, Mentoring PI, Co–investigators: Amisha Shah (PI) (Civil Engineering / Environmental and Ecological Engineering), Purdue University
15. GoFundMe.com / Water Pipe Safety Study, 8/1/16–12/1/16, \$1,350, PI, \$1,350, Co–investigators: Brandon Boor (co–PI) (Civil Engineering), John Howarter (co–PI) (Materials Engineering / Environmental and Ecological Engineering), Nadya Zyaykina (co–PI) (Civil Engineering / Environmental and Ecological Engineering), Purdue University
16. U.S. Environmental Protection Agency National Priorities Program / Right Sizing Tomorrow's Water Systems for Efficiency, Sustainability, and Public Health, 1/12/17–1/11/20, \$1,989,000 from EPA plus \$1,191,000 industry cost–sharing, PI, \$1,051,975 (plus \$1,191,000 industry cost–sharing), Co–investigators: J. Mitchell (co–PI) Biological and Agricultural Engineering, Michigan State University; J. Rose (co–PI) Fisheries and Wildlife, Michigan State University; A. Pouyan (co–PI) Biological and Agricultural Engineering, Michigan State University, J. Lee (co–PI) Civil and Environmental Engineering, San Jose State University
17. Indiana Department of Transportation (INDOT) / Blast Furnace Slag Usage and Guidance for Indiana, 5/15/17–2/18/18, \$49,598, PI, \$49,598, Co–investigators: None
18. City of Desoto Public Utilities, Texas / Evaluation of the Effects of PEX Plumbing Pipe on Drinking Water Odor [Whelton cancelled contract because Sponsor failed to complete activities needed for Purdue to begin onsite visit]. 9/7/17–3/18/18, \$40,000, PI, \$40,000, Co–investigators: None
19. U.S. National Institute of Safety and Health (NIOSH)– University of Illinois at Chicago Center / Safety Evaluation of Cured–in–Place–Pipe, 8/1/17–5/1/18, \$15,000, coPI, \$0, Co–investigators: J Shannahan (PI), Health and Human Sciences, JP Youngblood (coPI) Materials Engineering, Purdue University
20. Center for the Environment, Purdue University / A Chemical Mixture Conundrum: Leaching and Toxicological Assessment of Drinking Water in Contact with Crosslinked Polyethylene (PEX) Pipes, 5/1/2018–5/1/2019, \$15,000, PI, \$7,500, Co–investigators: J. Freeman (PI), Health and Human Sciences, Purdue University
21. Paradise Irrigation District / Field Support in Response to the 2018 Camp Fire, 2/5/19–5/1/2/17/19, \$12,000, PI, \$12,000, Co–investigators: A Shah (coPI) (Civil Engineering / Environmental and Ecological Engineering), D Yu (coPI) (Civil Engineering / Political Science), C Proctor (coPI), Purdue University, J Lee (coPI) (Civil and Environmental Engineering), Manhattan College

22. Paradise Irrigation District / Public Meeting Support in Response to the 2018 Camp Fire, 3/1/19–3/22/19, \$10,000, PI, \$10,000, Co-investigators: J Lee (coPI) (Civil and Environmental Engineering), Manhattan College
23. Roosevelt Warms Spring Foundation / Plastics in water supply: Chemical leaching from new epoxy linings, 2/1/2019–2/1/2022, \$62,000, PI, \$62,000, Co-investigators: John Howarter (co–PI) (Materials Engineering / Environmental and Ecological Engineering), C. Proctor (co–PI) (Civil Engineering / Environmental and Ecological Engineering), Purdue University
24. Paradise Irrigation District / Drinking Water and Plumbing After the Camp Fire, 6/24/19–6/29/19, \$9,892, PI, \$9,892, Co-investigators: A Shah (coPI) (Civil Engineering / Environmental and Ecological Engineering), D Yu (coPI) (Civil Engineering / Political Science), C Proctor (coPI), Purdue University.
25. Indiana Department of Transportation (INDOT) / Minimizing Blast Furnace Slag (BFS) Leachate Through Improved Product Acceptance Criterion and Siting Considerations, 7/1/19–11/1/20, \$152,199, PI, \$152,199, Co-investigators:Nadya Zyaykina (co–PI) (Civil Engineering / Environmental and Ecological Engineering), Chad Jafvert (co–PI) (Civil Engineering / Environmental and Ecological Engineering), Purdue University
26. U.S. National Institute of Health / National Institute of Environmental Health Sciences (NIEHS) / Assessment of Cured–In–Place Pipe Installation Emissions and Toxicity; R03 program, 7/1/19–6/30/21, \$150,000, coPI, \$60,000, Co-investigators: J. Shannahan (PI) (Health Sciences), Purdue University
27. U.S. National Science Foundation / RAPID: Shutdowns and Consequences: Extreme Plumbing Stagnation and Recommissioning, 4/1/20–3/1/21, \$200,000, PI, \$175,000, Co-investigators: C. Proctor (coPI), P. Robinson (coPI) (Biomedical Engineering), Purdue University
28. U.S. National Science Foundation / EAGER: Initiating a Transformative Building Water System Research Collaborative in Rapid Response to the COVID-19 Pandemic, 8/1/20–7/31/22, \$165,000, PI, \$115,000, Co-investigators: C. Proctor (coPI) (Biomedical/EEE/CE/MSE Engineering), Purdue University
29. U.S. National Science Foundation / Supplement to EAGER: Initiating a Transformative Building Water System Research Collaborative in Rapid Response to the COVID-19 Pandemic, \$20,473.
30. U.S. Environmental Protection Agency Region 5 / Public Health Workgroup on Developing Practices for Responding to Chemical Incidents Associated with Cured-in-Place-Pipe Construction Projects, 10/1/20–5/1/21, \$15,000, PI, \$15,000, Co-investigators: J. Shannahan (coPI) (HHS), Purdue University.
31. Water Research Foundation/ Post-Wildfire Distribution System Water Quality Impacts and Potential Responses, 5/2021-5/2023, \$225,000, PI, \$150,000, Co-investigators: AD Shah (coPI) (EEE/CE), Purdue University. Sponsoring Utility: East Bay Municipal Utility District; Project Partners: Los Angeles Department of Water and Power, Contra Costa Water District, San Jose Water Company, City of Napa, Portland Water Bureau, Paradise Irrigation District, City of Santa Rosa.
32. Water Research Foundation/ Supplement to Post-Wildfire Distribution System Water Quality Impacts and Potential Responses, \$25,000.
33. U.S. National Science Foundation / Towards an Improved Understanding of Plastic Pollutant Generation and Minimization Processes for Cured-in-Place-Pipe Manufacture, 8/1/21–7/31/24, \$330,000, PI, \$300,000, Co-investigators: Jeffrey Youngblood (MSE), Brandon Boor (CE), Jonathan Shannahan (HHS), Purdue University
34. U.S. Naval Facilities Engineering Command / Onsite Technical Assistance in Response to Drinking Water Contamination, 12/11/21-12/22/21, \$28,742.50, PI, \$24,000, Co-investigators: Caitlin Proctor (ABE/EEE), Amisha Shah (CE/EEE), Purdue University
35. City of Louisville, Colorado / Onsite Technical Assistance in Response to Colorado Wildfires, 1/5/22-1/18/21, \$28,000, PI, \$28,000. Co-investigators: None.
36. U.S. National Science Foundation / RAPID: Water Contamination Response and Recovery for the 2021 Colorado Wildfires, 1/7/22–1/15/24, \$200,000, PI, \$180,000, Co-investigators: Jeffrey Youngblood (MSE), Amisha Shah (CE/EEE), Amy Marconnet (ME), David Johnson (IE/POLY), Purdue University

37. U.S. National Science Foundation / RAPID: Elucidating the fate of VOCs and SVOCs in drinking water wells and household water plumbing systems following the East Palestine chemical accident, 7/1/23–6/30/24, \$200,000, PI, \$190,000, Co-investigators: Caitlin Proctor (ABE/EEE), Linda Lee (AGY/EEE), Jeffrey Youngblood (MSE), Nusrat Jung (CE), Purdue University.
38. Open Collective / Support for the East Palestine Disaster Response Research. \$9,000. Gift PI. Co-investigators: None.
39. Maui County, Maui, Hawaii / Onsite Field Support for the Response and Recovery due to Wildfires in Hawaii, 8/23-9/23, \$50,000, PI, \$45,000, Co-investigators: Amisha Shah (CE/EEE), Caitlin Proctor (ABE/EEE), Juneseok Lee (Manhattan College).
40. U.S. National Science Foundation / RAPID: Identifying Drinking Water Contamination and Social Vulnerability Impacts from Urban Fires, 10/1/23–9/30/24, \$200,000, co-PI, \$0.00, PI: Tom Giambelluca and co-investigators: Chris Shuler, Aurora Kagawa-Viviani, University of Hawaii.
41. National High Magnetic Field Laboratory, Florida State University Ion Cyclotron Resonance Program, ICR User Program, Instrument Access: 21 T Hybrid LTQ/FT-ICR MS. 01/11/24-5/1/24, \$0.00. PI, Co-investigators: None.
42. Maui County, Hawaii, Toward More Resilient Water Systems in the Face of Fire: Solutions to Understanding and Preventing Infrastructure Damage, \$25,000. 09/17/25-09/16/26. PI, Co-investigators: None.
43. Water Research Foundation, Toward More Resilient Water Systems in the Face of Fire: Solutions to Understanding and Preventing Infrastructure Damage, \$225,000. 09/17/25-09/16/26. PI, Co-investigators: Amy Marconnet (MechE).
44. U.S. National Science Foundation / Collaborative Research: FIRE-WUI: Harnessing AI and Engineering Innovation for Post-Fire Property Decontamination and Economic Recovery 2536797, 2/15/26–1/31/29, \$350,000. PI: Andrew Whelton and co-investigators: Lauryn Spearing, Tufts University; Sanjay Mohanty, UCLA.
45. U.S. National Science Foundation / 2622834 Collaborative Research: Conference: FIRE-NET: From Combustion to Recovery: Science and Solutions for Post-Fire Building Contamination, 9/1/26–8/31/27, \$128,880. PI: Andrew Whelton and co-investigators: Francois Tissot, Caltech; Lauryn Spearing, Tufts University; Michael Gollner, UC Berkeley. Collaborator: Eaton Fire Residents United.

5. TECHNOLOGY TRANSFER

Healthy Plumbing Coalition (Center), formed 2021 - 2024

Membership finalized April 2021, consortium initiated. Copper Development Association, IntelliHOT, Inc. DELTA, Inc.

Center (for Plumbing Safety and More), initiated 2017 - Present

Initiated collaboration with companies, municipalities, nonprofit organizations spurred by a \$2M national priorities research study lead by Purdue (Whelton PI), and partners with multiple other institutions. Website setup by www.PlumbingSafety.org, which is described below. Continued work supported by subsequent grants and contracts.

U.S. and international patents, including those applied for, awarded, and licensed

Patent awarded Methods and Systems for Treating Emissions Released During Closed Molding Processes, patent number 11,486,530. USPTO. AJ Whelton, JA Howarter, BE Boor, M Teimouri, E Conkling. Provisional Patent application PRF No. 2017-WHEL-67875: Method and System for Analyzing Emissions Released During Closed Molding Processes. AJ Whelton, JA Howarter, BE Boor, M Teimouri, E Conkling. 4/16/17. Provisional granted by USPTO 62486529. <https://patents.google.com/patent/US20210102655A1/en>

Patent application submitted. PRF Ref: 71011-01, U.S. Application No: 63/777,108, Title: Rapid Screening of Volatile Chemicals with Proton Transfer Reaction Mass Spectrometry, Priority Date: March 25, 2025. N Jung, BE Boor, AJ Whelton.

Other consulting and collaborations

- Southern Company Services, Inc. Atlanta, Georgia. 2013–2016.
- American Water, Voorhees, New Jersey. 2013–2016.
- Corona Environmental Consulting, LLC Scituate, Massachusetts. February 2014–2017.
- Lubrizol Corporation, Countryside, Illinois. January 2015–2017.
- Whirlpool Corporation, Bar Harbor, Michigan. November 2015–Present.
- TERA, Cincinnati, Ohio. December 2015–September 2016.
- National Sanitation Foundation International, Ann Arbor, Michigan. 2015–2016.
- Kennedy's LLP, London, United Kingdom, 2017–2018.
- WGBH Boston, Boston, Massachusetts, 2017.
- The Moses Legal Team, PA, Florida, 2021–2022.
- The Society of Actuaries, Illinois, 2023–2023.
- Miniasian Law, PLC, California, 2023–2024.
- Baron and Budd, PCC and Diab and Chambers, PLC, Texas, 2023–Present.
- Tetra Tech, Inc., Hawaii, 2024–2024
- Health Canada, Ottawa, 2024–2024.
- State of Illinois Office of the Attorney General, Illinois, 2024–Present.

Research and engagement impacts on policy

Cured-in-Place Pipe Occupational, Environmental, and Public Safety

Interactions with the state agencies about Prof. Whelton's team cured-in-place-pipe (CIPP) pipeline repair practice research discoveries precipitated the agency to issue factsheets. California issued a July 2017 statewide safety alert and then revised and reissued their statewide warning in May 2020 and 2023 with Prof. Whelton team's recommendations. In September 2020 the Florida Department of Health issued and posted their own information designed for county health departments. The files were downloaded and posted on Prof. Whelton's www.CIPPSafety.org website:

- In September 2017, the California Department of Public Health issued the first state level factsheet about CIPP health concerns: Additional CIPP Considerations Announcement: <https://engineering.purdue.edu/CIPPSafety/resources/CDPH-CIPP-Additional-Considerations-2017.pdf>
- In May 2020, the California Department of Public Health updated and re-issued the only state level factsheet about CIPP health concerns: California Department of Public Health, CIPP Safety Alert: <https://engineering.purdue.edu/CIPPSafety/resources/CIPP-Safety-Alert-2020-Update-ADA.pdf>
- In September 2020, the Florida Department of Health issued their own factsheet about CIPP health concerns: Cured-in-Place-Pipe Factsheet: http://www.floridahealth.gov/environmental-health/hazardous-waste-sites/documents/final_fdoh_cipp.pdf?_ga=2.112450372.1791339482.1601759328-2032196033.1594315315.
- In November 2023, the California Department of Public Health updated and re-issued their CIPP health concerns factsheet: Cure-In-Place Pipe (CIPP) Vapor Migration into Buildings: <https://www.cdph.ca.gov/Programs/CCDC/DEODC/OHB/CDPH%20Document%20Library/CIPPSafetyAlert2023.pdf>

Several industry groups commissioned their own research and from that, which confirmed serious health risks identified by Whelton's teams, issued recommendations to limit the release and spread of chemical contamination as well as improve practices to better protect worker and public safety in and outside the U.S.

COVID-19 Pandemic Caused Building Water Stagnation and Health Risks

In response to the COVID-19 pandemic, Prof. Whelton team's resources and website www.PlumbingSafety.org were explicitly cited by US state health and environmental agencies in their statewide and citywide issued COVID-19 guidance. Some of, not all, the documents are listed below.

- City of Iowa City, Iowa. Flush water pipes prior to reopening facilities after long term closures. https://content.govdelivery.com/accounts/IAIOWA/bulletins/28c6c80?_ga=2.233198551.853664955.1589250785-1265206820.1589250785
- State of Oregon, Oregon Health Authority (April 2020) – Guidance for Reopening Building Water Systems after Prolonged Shutdown <https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/Documents/reopening-guidance.pdf>
- State of Minnesota, Department of Health (April 2020) – Ensuring Water Quality in Building Premise Plumbing: Guidance for Building Owners and Operators During and After COVID-19 <https://www.health.state.mn.us/communities/environment/water/docs/com/buildowner.pdf>
- State of Indiana, Department of Health (April 2020) – Building Water System Startup Guidance <https://www.in.gov/isdh/files/Building%20Water%20Startup%20Guidance%20FINAL.pdf>
- State of Indiana, Department of Environmental Management (April 2020) – IDEM Guidance for Flushing Water Systems <http://www.valparaisoutilities.org/DocumentCenter/View/1152/IDEM-Guidance-for-Flushing-Water-Systems-42820>
- State of Washington, Department of Health (April 2020) – Shock Chlorination Guidance for Building Water Systems Restoring Water Service to Shutoff Buildings <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/ShockChlorinationGuidanceforBuildingWaterSystems.pdf>
- State of Washington, Department of Health (May 2020) – COVID-19 Guidance for Legionella and Building Water System Closures https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/LegionellaandBuildingWaterSystemClosuresCOVID-19.pdf?_ga=2.2053752.853664955.1589250785-1265206820.1589250785
- State of Ohio EPA and Ohio Department of Health (March 2020) – Guidance for Premise Plumbing Water Service Restoration <https://epa.ohio.gov/Portals/28/documents/pws/guidance-for-premise-plumbing-water-service-restoration.pdf>

In response to the COVID-19 pandemic, the following trade associations explicitly linked Prof. Whelton's team's resources and website www.PlumbingSafety.org in their COVID-19 guidance. The websites are listed below.

- Canadian Water and Wastewater Association (CWWA) https://cwwa.ca/re-opening-buildings-fact-sheet_final-amend1-2/
- International Association of Plumbing and Mechanical Officials (IAPMO) <https://www.iapmo.org/whats-new/covid-19-industry-resources/>
- National Environmental Health Association (NEHA) <https://www.neha.org/covid-19>
- Association for State Drinking Water Administrators (ASDWA) <https://www.asdwa.org/2020/04/13/covid-19-resources-for-building-water-systems/>
- American Society of Plumbing Engineers (ASPE) <https://www.aspe.org/coronavirus-covid-19-preparedness-resources/>

In response to the COVID-19 pandemic, several documents issued by the American Waterworks Association (AWWA) as well as state and county governments and Sloan Valve Company were informed through conversations with Prof. Whelton and his team, but did not formally list Purdue University or Prof. Whelton on their guidance documents.

Disaster Response and Recovery

To support disaster preparedness, mitigation, response, and recovery decisions study results have been translated into informal policy and been used to create laws. Impacts have spanned local, county, statewide, and federal policy. The first of its kind concept for operations plan for water utilities was created from working with utilities from major fires from 2017-2024 and then was adopted by 11 water utilities impacted by the 2025 L.A. Fires (California) and the utility impacted by the Spokane Complex Fires (Washington). This is shared in Canada and Europe at request of governments and utilities for advice on how to safely and rapidly restore systems to safe use.

Wildfire related impacts

- (2019) California Water Resources Control Board published a policy for public water systems (2019) on how to respond to and recover from wildfire caused drinking water contamination partly based on Whelton's team's work.
- (2020) U.S. Federal Emergency Management Agency (FEMA) adopted new policy for helping public drinking water systems recover from wildfire partly due to Whelton's team's contributions: [Federal Insurance and Mitigation](#).
- (2020) Oregon Health Authority published a factsheet for regulated public water systems on how to respond to and recover from wildfire caused drinking water contamination partly inspired by Whelton's team's work. [Post-wildfire VOC Sampling Guidance for Public Water Systems](#).
- (2021) Whelton's Center published the first guide for public building drinking water system owners and private drinking water well owners who seek to conduct post-wildfire inspection and recovery. [After a Wildfire: Water Safety Considerations Inside Buildings](#), [After a Wildfire: Water Safety Considerations for Private Wells](#).
- (2021) U.S. Environmental Protection Agency Office of Water (4608-T) invoked Whelton's team's work in their factsheet [Addressing Contamination of Drinking Water Distribution Systems from Volatile Organic Compounds \(VOCs\) After Wildfires, EPA 817-F-21-011](#).
- (2021) Oregon Health Authority issued guidance for assisting private drinking water well owners with drinking water safety concerns and directly incorporated Whelton's team's recommendations. [Assessing damage to private wells after the fire](#).
- (2021) During the Marshall Fire response, the Boulder County Health Department directed impacted households to Whelton's team's Plumbing Safety Guidance. Prof. Whelton's documents were utilized to issue their own guidance. *Marshall Fire Air and Water Quality*. Links [here](#) and [here](#).
- (2023) National Environmental Health Association published a guide for health departments on responding to wildfires that was informed by and invoked work by Whelton's team. [Wildfire Response: Guide for Environmental Public Health Professionals](#).
- (2023) After the Maui wildfires, the Hawai'i Department of Health issued guidance to impacted households and businesses on chemical safety of water systems after wildfires partly based on Whelton's team's work. [Volatile organic compounds \(VOCs\) fact sheet for Maui residents impacted by wildfires](#).
- (2023) The U.S Centers for Disease Control and Prevention (CDC) issued updated guidance on inspecting and testing private drinking water wells after a wildfire. [This document includes discoveries from Whelton's teams work](#).
- (2023) A commission setup by the USDA on wildland fire and mitigation national needs published a report that invoked Whelton's team's work. [ON FIRE: The Report of the Wildland Fire Mitigation and Management Commission Final Report](#). This was then adapted for legislation by Sen. Romney and Sen. Kelly for the *EMBER Act*.
- (2024) Hawai'i Department of Agriculture created guidance for agricultural businesses about water system inspection, testing, and repair after a wildfire with Whelton's team's assistance. Link [here](#) and the peer-reviewed paper has been published.
- (2024) Chemical Insights Research Institute (CIRI) published a guide for health departments on responding to wildfires that was informed by and invoked work by Whelton's team. *Guidance and Practical Strategies for Reducing Public Health Impacts of Wildland-Urban Interface (WUI) Fires on Community Populations*. Link [here](#).
- (2024) The Water Research Foundation publishes Dr. Whelton's Concept of Operations Plan (CONOPS) for water utilities facing wildfire. Link [here](#).
- (2024) Results from Whelton's team study helped inform the drafting and passage of [California State Assembly Bill 541](#) signed by the Governor of California. This law enshrines the requirement for post-fire public water system testing, the first such disaster response and recovery testing standard in the U.S.
- (2025) In response to the 2025 fires in Los Angeles, water utilities adopted and applied principles from the CONOPS plan. The adoption of this evidence-based guidance underscores a paradigm shift has occurred - which was made possible by the convergence of research and practice led by Whelton.
- (2025) The first building environmental testing guidance document was created and released led by Whelton's Purdue team in collaboration with Lightbox, Inc. [After a Wildfire: Considerations for Building Environmental Testing](#). This was created and issued in response to the decades long gap of evidence-based decision-making

- guidance for wildfire recovery where buildings are impacted. Link [here](#).
- (2026) California State Assemblyman introduced [Legislation to End Insurance Driven Fire Testing and Establish Science Based Safety Standards](#). Sacramento, California. January 27, 2026. [Quote from Prof. Whelton because of his team's L.A. Fires environmental health and safety investigative and guidance work as well as experience after other disasters nationwide]
 - (2026) Whelton's Center published the first an evidence-based guide for property owners who seek to understand post-wildfire debris removal and soil testing with Hammer Consulting Services based on 30 years of fire recovery experience. [After a Fire: Considerations for Residential Property Soil Testing and Restoration](#)
 - (2026) Whelton's Center provided technical support to the Norwegian Institute of Public Health after the most destructive wildfires in that country's modern history.
 - (2026) Whelton's group published an evidence-based guide for property owner safety considerations who consider visiting fire damaged properties with Hammer Consulting Services and LightBox based on 30 years of fire recovery experience. [After a Fire: Considerations of Personal Safety When Visiting Fire-Damaged Property](#)
 - (2026) Results from Whelton's team study helped inform drafting, negotiations, and passage of [California State Assembly Bill 1642](#) signed by the Governor of California. This law enshrines the first evidence-based post-fire residential testing standards in the U.S.
 - (2026) Whelton's team issued the [first compendium of evidence-based fire recovery guidance](#) in the U.S. This compendium covers personal safety, debris removal and soil restoration, indoor environment testing and restoration, public drinking water systems, private wells, building plumbing, and agricultural water systems. More work is ongoing on other topics to help expand decision-making resources for property and business owners, health and public works officials.

6. ENGAGEMENT / SERVICE

Service to university employers

Major committee assignments in the Division, School, and/or University

University of South Alabama, University Freshman Orientation, Civil Engineering, faculty representative, Summer 2011, 2012, 2013.

University of South Alabama, Civil Engineering Fundamentals of Engineering Exam Review Instructor, Fall 2011, 2012, Spring 2012, 2013.

University of South Alabama, Civil Engineering Graduate Society, *Faculty Advisor*, May 2013–August 2014.

University of South Alabama, College of Engineering *Safety Committee*, Chair, January 2012–August 2014.

University of South Alabama, University Level *Writing Committee*, Member, August 2011–August 2014.

Purdue University, Environmental and Ecological Engineering *Seminar Committee*, Member, August 2014–May 2015.

Purdue University, Environmental and Ecological Engineering *Faculty Search Committee*, Member, August 2014–October 2015; General position search; HHS/EEE position search.

Purdue University, Ecological Sciences and Engineering *Admissions Committee*, Member, October 2016–Present.

Purdue University, Environmental and Ecological Engineering *Graduate Affairs Committee*, Member, July 2016–May 2017.

Purdue University, Environmental and Ecological Engineering *Space and Facilities Committee*, Member, August 2014–July 2016.

Purdue University, Environmental and Ecological Engineering *EEE 250 Course Assessment Committee*, Chair, September 2016–December 2016.

Purdue University, Bilsland and Purdue Doctoral *College of Engineering Fellowship Review/Selection Committee*, Member from EEE, March 2017

Purdue University, Ecological Sciences and Engineering Teaching Excellence Award Selection Committee, Member, April 2018.

Purdue University, Environmental and Ecological Engineering *Academic Affairs Committee*, Member, August 2019–2020.

Purdue University, College of Engineering COVID-19 *Research Restart Committee*, Member, March 2020–June 2020.

Purdue University, *College of Engineering, Library Committee* – EEE Representative, August 2018–2022.

Purdue University, Lyles School of Engineering, *Faculty Hiring Committee*, Member. December 2020–2021.

Purdue University, Division of Environmental and Ecological Engineering Visiting Assistant Professor Search Committee, Member, January 2022 – August 2022.

Purdue University, Academic Advisor, Joint AWWA–WEF student chapter, July 2017 – 2021.

Purdue University, Lyles School of Civil Engineering, Graduate Program Committee, Environmental Area Coordinator/Representative, August 2018–Present.

Purdue University, Environmental and Ecological Engineering Graduate Committee, Member. August 2020 – Present.

Purdue University, Lyles School of Civil Engineering, Online Masters Committee, Member. 2019 – Present.

Purdue University, College of Engineering Diversity and Inclusion Committee, Member, February 2021 – 2022.

Purdue University, Lyles School of Civil Engineering Diversity and Inclusion Committee, Member, August 2021 – 2022.

Purdue University, Lyles School of Civil Engineering, Ad-hoc HBCU Engagement Group, 2021– 2023.

Purdue University, College of Engineering Global Engineering and Partnerships Committee, Member. August 2026 – Present.

Administrative duties

Purdue University, Civil Engineering, *Faculty undergraduate advisor*, 2015–Present.

Purdue University, Environmental and Ecological Engineering, *Faculty undergraduate advisor*, 2014–2025.

Purdue University, Sustainability Engineering and Environmental Engineering, *Faculty undergraduate advisor*, 2015–Present.

Purdue University, *West Virginia Chemical Spill, Event Organizer and Host*. Community, Communications, and Science: The Freedom Industries Chemical Spill Public Forum at Purdue University. November 12, 2014. Invited speakers Dr. Rahul Gupta, MPH, MD, Executive Director, Kanawha–Charleston Health Department, Charleston, West Virginia; Ms. Krista Bryson, Ohio State University, Columbus, Ohio; Ms. Maya Nye, President, People Concerned About Chemical Safety, Charleston, West Virginia; Mr. Rob Goodwin, West Virginia Clean Water Hub, Charleston, West Virginia.

Purdue University, *College of Engineering, Minority Engineering Program*, 9th grade Environmental and Ecological Engineering speaker. 2014.

Purdue University, *Ecological Sciences and Engineering*. Student Research Poster Competition Judge. 2014.

Purdue University, Politics, Public Opinion, and Science, College of Agriculture, Panelist, October 18, 2017.

Purdue University, Policies to Protect the Public from Exposure to Chemicals, College of Engineering, Panelist, January 26, 2018.

Purdue University, Future Engineering Faculty and Professionals: Mentoring Graduate Students, College of Engineering, Panelist, April 3, 2018.

Purdue University, College of Engineering Distinguished Lecturer Protecting Drinking Water Panel, Moderator, February 21, 2019.

Service to national / international organizations

Invited participant for the *Expert Chemical Agent Panel*. Environmental Protection Agency and National Sanitation Foundation International (NSFI). 2003.

Invited participant for the *Expert Syndromic Surveillance Consultancy Forum*. Environmental Protection Agency National Homeland Security Research Center and Centers for Disease Control. 2004.

Invited expert for the *Water Contaminant Information Tool (WCIT)* Review Panel. Environmental Protection Agency. 2005.

Invited proposal reviewer and project advisory committee member, *Water Research Foundation*. Project 4379 – Workshop Research Needs about Opportunistic Pathogens in Premise Plumbing, 2011–2012.

Invited expert for the *Nuclear Power Facility Plastic Pipe Task Group*, Nuclear Engineering Standards Coordinating Council (NESCC) directed by the National Institute for Standards and Technology. 2011–2012.

Invited expert for the *International Life Sciences Institute (ILSI)*, Expert Group of *Measurement Methods for the Release of Engineered Nanomaterials from Food and Absorption by the Body*. December 11–12, 2013. Pew Charitable Trusts. Washington, D.C.

Invited to brief the *U.S. Chemical Safety and Hazard Investigation Board (CSB)* regarding the 2014 Freedom Industries, Inc. Chemical Spill. October 10, 2014. Washington, D.C.

Invited panelist at the *U.S. National Science Foundation Lessons Learned Workshop for the Dan and Elk River Spills*. 2015. Discuss the role of science during and following the 2014 Elk River, West Virginia chemical spill. Shepherdstown, West Virginia.

Invited to provide feedback to the *U.S. Department of Homeland Security* about research and preparedness activities needed for improved infrastructure protection. 2016. West Lafayette, Indiana.

Invited to review and provide feedback to the *U.S. Chemical Safety and Hazard Investigation Board* regarding their Freedom Industries Root Cause Investigation Draft Report. 2016. Washington, D.C.

Invited to brief the Standing Committee on Medical and Public Health Research During Large–Scale Emergency Events, Board on Health Sciences Policy, Health and Medicine Division, *The National Academies of Sciences, Engineering, and Medicine*. Washington, D.C. USA. October 18, 2016.

Invited proposal reviewer for *U.S. National Science Foundation (NSF)* Chemical, Bioengineering, Environmental and Transport Systems (CBET) Program Proposal Review Panels (April 2016, May 2016), and Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS) Program Proposal Review Panel (May 2017), ECO-CBET Program Proposal Review Panel (March 2021), CAREER (October 2021), Unsolicited Proposal Panel (December 2024).

Invited panelist to U.S. Green Building Council (USGBC) Green Build Conference. to a Building Drinking Water Quality Session. Boston, Massachusetts. November 7–10, 2017.

Invited proposal reviewer and project advisory committee member, *Water Research Foundation*. Project 5033 – Demonstrating the Effectiveness of Flushing for Reducing the Levels of Legionella in Service Lines and Premise Plumbing, 2019–Present.

Public comment for the National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions, Docket ID No. EPA–HQ–OW–2017–0300. David Cwiertny (University of Iowa), Andrew Whelton, Joan Rose (Michigan State University). Submitted February 12, 2020.

Invited to brief the *National Academies of Sciences, Engineering, and Medicine*. Board on Population Health and Public Health Practice and Board on Health Sciences Policy workshop entitled *Implications of the California Wildfires for Health, Communities, and Preparedness*. Held in Sacramento CA. Implications for Health: Responding to and Recovering from Wildfire Caused Drinking Water System Contamination. The National Academies of Sciences, Engineering, and Medicine. Washington, D.C. USA. June 4, 2019.

Invited to brief the *National Academies of Sciences, Engineering, and Medicine*, Board of Water Science and Technology. Reopening after COVID–19: Ensuring Safe Water Supplies at the Building Scale. The National Academies of Sciences, Engineering, and Medicine. Washington, D.C. USA. May 27, 2020.

Invited guest panelist at *World Plumbing Council* annual meeting. Plumbing System Implications Related to the COVID-19 Pandemic. December 9, 2020.

Reviewed, by request, the U.S. EPA 2021 guidance on wildfire water contamination investigations.

Technical comment provided to the National Academies of Science, Engineering, and Mathematics committee on *The Chemistry of Urban Wildfires*. August 2021.

Invited guest panelist at the Institute for Journalism & Natural Resources: Wildfire in the West Workshop, April 2021.

Invited guest panelist at the University of Alaska's Foundations for Improving Resilience in the Energy Sector Against Wildfires on Alaskan Lands (FIREWALL) Workshop sponsored by National Science Foundation grant Navigating the New Arctic. Research Directions in Wildfire Resilience. September 2021.

Invited speaker at the Canadian Interior Ministry of Health BC Small Systems Center about wildfire response and recovery for drinking water systems, May 2022.

Invited speaker at the U.S. Whitehouse Office of Science and Technology, Climate and Environment, September 2022.

Invited expert for reviewing U.S. Environmental Protection Agency Water System Remediation Action Plan Guide, January 2023.

Invited expert for compiling state of knowledge wildfire and water systems report for Water Research Foundation, Fall 2024

Invited to brief the *National Academies of Sciences, Engineering, and Medicine, Health and Medicine Division, Public Health Research and Surveillance Priorities from the East Palestine, Ohio Train Derailment: A Workshop*. The National Academies of Sciences, Engineering, and Medicine. Washington, D.C. USA. November 6-7, 2020.

Invited to brief the National Nanotechnology Coordination Office (NNCO) at their US-European Union 2023 NanoEHS Communities of Research Workshop, Washington, D.C. USA. November 17, 2023.

Invited expert to the *National Wildfire Summit, Wildland Fire Mitigation and Management Commission*. March 13, 2024. PEW Charitable Trusts. Washington, D.C.

Invited to brief the *U.S. National Academies of Science, Engineering, and Medicine: Forum on Medical & Public Health Preparedness for Disasters and Emergencies*. March 26, 2025. Washington, D.C.

Invited keynote to brief the *U.S. National Academies of Science, Engineering, and Medicine: Wildfires and Municipal Water Systems*. Water Science and Technology Board. May 14-15, 2025. Irvine, California.

Service to state organizations

Invited to testify to the *State of Indiana, Senate Environmental Affairs Committee*, January 2015, regarding scientific issues pertaining to the Freedom Industries chemical spill in West Virginia. Senate Bill 312, Tank Registration and Water Threat Minimization Act.

Participation on the Camp Fire State of California Governor's Office of Emergency Services (CalOES) Water Task Force, January 2019–March 2019.

Invited to testify to the *State of Oregon, House of Representatives, Committee on Water*, February 2020, regarding pipe choices for drinking water systems pertaining to their performance under routine and disaster conditions. House Bill 4043.

Reviewed, by request, the 2021 Washington State Department of Health public guidance on reopening building water systems after prolonged shutdown.

Invited to brief the State of California Department of Insurance Fire and Smoke Commission, October 14, 2025, regarding building environmental testing after fires and wildfires.

Invited to serve by New Mexico Department of Homeland Security and Emergency Management on the multi-agency Water Quality Technical Working Group. February 2026 -Present.

Service to professional organizations

Invited *panelist at the Society of Environmental Journalist Conference*. 2014. Discuss the role of science and the media during and following the 2014 Elk River, West Virginia chemical spill. New Orleans, Louisiana.

Co-leader of National Workshop on flushing guidance for consumer premise plumbing and service lines to avoid or address a drinking water advisory. Participants include CDC, EPA, National Association of City and County Health Officials (NACCHO), National Environmental Health Association (NEHA), U.S. Department of Defense, large water companies in the national capital region area. 2015. Washington, D.C.

Invited *panelist at the Society of Environmental Journalist Conference*. 2018. Discuss the technologies for water infrastructure repair and public health and safety issues that need to be addressed. Flint, Michigan.

Session Moderator, AEESP biannual conference, Tempe, Arizona, 2019.

Panelist at the American Water Works Association Annual Conference and Exposition special session Water Quality in Building Plumbing: Protecting Water Quality on the Customer's Premises. June 2019. Denver, Colorado. [Prof. Whelton was the session organizer]

Review service for multiple journals: *Utility Policy*, *ASCE Journal of Environmental Engineering*, *AWWA Water Science*, *Chemosphere*, *EcoHealth*, *Environmental Science and Technology*, *Environmental Science: Water Research and Technology*, *Journal of Food Engineering*, *Polymer Degradation & Stability*, *Resources Conservation and Recycling*, *Water Research*, *Water*, *Environmental Pollution*, *Water Science and Technology*, *Environmental Science and Pollution Research*.

Chair, *AWWA University Student Activities Committee (USAC)*. Appointed May 6, 2020-2022. Member 2022 – 2023.

Subcommittee Leader, *AWWA ACE Lightning Session 2021*, *AWWA Premise Plumbing Committee*. July 2020 – December 2020.

Member, *IAPMO Returning Building Water Systems to Service Guidance Document Development Team*, July 2020 – December 2020.

Associate Editor, *AWWA Water Science* journal, November 2018–Present.

Member, *AWWA Premise Plumbing Committee*, *Copper Subcommittee*. 2020 – 2024.

Panelist at the Water Environment Federation webinar on Building Water Systems, 2022.

Invited *panelist at the AEESP Conference at special session Translating Research into Active Engagement*. June 2022. St. Louis, Missouri.

Member, *Geotechnical Extreme Events Reconnaissance (GEER) Field Team in Response to the Marshall Fire*. 2022. The GEER Association is supported by the National Science Foundation.

Panelist at the AEESP biannual conference, Workshop on Convergent Research, Implementation Science, and Stakeholder Engagement to Benefit Environmental Health, St. Louis, Missouri, 2022.

Assistant Moderator at the AEESP biannual conference on the Workshop - T1: Careers in Environmental Engineering & Science after Graduate School, Massachusetts, 2023.

Poster session judge at the AEESP biannual conference, Massachusetts, 2023.

Panelist about media interactions at the AEESP biannual conference on the Workshop - T11: Impacts Beyond the Academy: Effectively Leveraging Research and Expertise for Public Policy, Massachusetts, 2023.

Panelist about chemical disasters and lessons from a public health and community resilience perspective. Indiana Water Summit. Indianapolis, Indiana. August 11, 2023.

Panelist about rapid scientific support for the chemical spill and chemical fires in East Palestine, Ohio. National Association of Science Writers Conference. Boulder, Colorado. October 10, 2023.

Panelist on L.A. Fires Recovery. May 20, 2025. Cal Tech. Pasadena, California.

Service to industrial and nonprofit organizations

Co-host of Citizen Scientist Workshops as part our EPA STAR Project. Community Group Participants: Be Ready Alliance for Community Emergencies (Pensacola, Florida); Hijra House (Biloxi, Mississippi); Vietnamese Fisher Folk and Families (Biloxi, Mississippi); Mobile Baykeeper (Mobile, Alabama); Dauphin Island Estuarium (Dauphin Island, Alabama). August 20, 2013. Leader was Clemson University.

Invited *panelist at town hall meetings* sponsored by the Ohio Valley Environmental Coalition (OVEC) in response to the West Virginia Drinking Water Crisis. February 2014. Meetings held at Marshall University in Huntington, West Virginia and Putnam County, West Virginia.

Invited *panelist at the Association of Environmental Engineering and Science Professors* biannual meeting workshop: 'Defining Role of AEESP in Outreach and Communication, Ann Arbor, Michigan, June 2017.

Host and organizer of *Plumbing Safety workshop* as part our EPA National Priorities Project.

Invited *panelist and presenter at the Society of Environmental Journalists* annual conference. Water Infrastructure: Plants, Pipes, and Problems. Flint, Michigan, October 2018.

Invited *presenter* to the Michigan Drinking Water Workshop hosted by the Michigan Environmental Council. Ann Arbor, Michigan. December 6, 2018.

Invited *panelist* to the IntelliHOT, Inc. webinar on How to safely open buildings after COVID–19 shutdown: Restoring safe potable water. Panelist. May 21 and 26, 2020.

Invited panelist to the public discussion about healthy and resilient cities influenced by the COVID-19 panelist by the *Association of Environmental Engineering and Science Professors*, October 30, 2020.

Invited *panelist* to the WATTS Healthcare Online LIVE training event about plumbing design, operation, and safety. December 15, 2020.

Invited *member* to the IAPMO Plumbing Code Water Quality Practices code group, 2020 – 2021.

Invited *participant* Association of Environmental Engineering and Science Professors Strategic Planning Group, February 2021.

Member of Water Quality Research Foundation Proposal Review and Study Advisory Committee. 2019 – 2021.

Invited *speaker* to the Community Forum on Wildfires and Health in response to 2020 Oregon wildfires. Beyond Toxics (Eugene, Oregon). August 2021.

Volunteer reviewer and feedback for *undergraduates seeking to apply to graduate schools, National Convention*, Society of Hispanic Professional Engineers, November 2021.

Invited *proposal reviewer* for the Water Research Foundation Tailored Collaboration Program, 2022.

Invited *Technical Advisor*, National Environmental Health Association. 2021, 2022, 2023.

Invited *project advisory committee member*, Water Research Foundation: Demonstrating the Effectiveness of Flushing for Reducing the Levels of Legionella in Service Lines and Premise Plumbing project 5033, Site Visit Trondheim, Norway, March 2023

Invited presenter at United for East Palestine community meeting about rapid response research discoveries related to the chemical spill and chemical fires in East Palestine, Ohio, March 12, 2023.

Invited presenter at River Valley Organizing community meeting about rapid response research discoveries related to the chemical spill and chemical fires in East Palestine, Ohio, April 2, 2023.

Invited presenter at United for East Palestine Common Sense Summit, May 21, 2023 (virtual).

Invited speaker to the *Water Research Foundation Workshop: Wildfire Threats to Forested Water Supplies*. Seattle, Washington. October 3, 2023.

Invited panelist the National Association of Science Writers conference session on the Norfolk Southern Chemical Disaster in East Palestine Ohio. October 9, 2023.

Invited panelist Pali Strong Environmental Concerns and Testing Panel on the environmental health and safety response to the 2025 Palisades Fire, California. March 13, 2025. [Virtual]

Invited panelist on disaster response and recovery lessons to the National Association of City and County Health Officials (NACCHO) Conference Plenary Session, San Antonio, Texas. May 2, 2025. [Virtual]

Invited panelist to share environmental contamination and remediation perspectives at the Eaton Fire Residents United (EFRU) Webinar: *Speaker Event - WUI Recovery Q&A*. June 3, 2025. [Virtual] link: <https://www.youtube.com/watch?v=nK5PTe8suxQ>

Invited panelist to share environmental contamination and testing perspectives at the Pali Strong Straight Talk session. August 2025. [Virtual]

Invited panelist to share building environmental sampling, testing, and remediation perspectives at the Eaton Fire Residents United (EFRU) Webinar: *Guidance for Testing and Sampling Homes that Survived the Fire*. September 25, 2025. [Virtual] link: <https://www.youtube.com/watch?v=4k6lzwkywgE>

Invited presenter to share innovation opportunities at the *Water x Fire — A Clarke Prize Laureate Workshop*. National Water Research Institute. January 21-22, 2026. Fountain Valley, California.

Invited to provide feedback on draft proposed American Society of Testing and Materials (ASTM) E3312, Standard Guide for Mitigation of Wildfire Impact to Source Water Protection Areas and Risk to Water Utilities. American Society of Testing and Materials. May 2026.

Invited to panelist to share post-fire response and recovery technical expertise on a conference panel (Response, Recovery, and Resilient Systems) at the 16th IEEE Global Humanitarian Technology Conference, Boulder Colorado. October 2026.

Service to academic organizations

Representative of the US Army Center for Health Promotion and Preventive Medicine for the Virginia Tech National Science Foundation grant Materials Use: Science, Engineering and Society #0223992. 2003.

Participant in Bay Area Women's Coalition meeting for improved building construction practices in Pritchard, Alabama. Mobile, Alabama. October 2012.

Advisory Board Member, Virginia Tech, Postdoctoral Association. 2009–2010.
 Member, Virginia Tech, Department of Civil and Environmental Engineering Graduate Student Professional Development Committee. 2006.
 Member, Virginia Tech, National Science Foundation MILES IGERT Program, Science Museum Exhibit Development Team. 2007.
 Science Policy Club at Virginia Tech. Virtual presentation about the Role of Policy on Protecting Public Health. April 29, 2021.
 Panelist, Southern California Wildfires and Water Quality: Science Meets Policy. California Institute of Technology. Pasadena, California. May 20, 2025.

International activities

Participation in the joint Royal Academy of Engineering, Chinese Academy of Engineering, National Academy of Engineering Global Grand Challenges Summit, London, England. September 16–18, 2019.
 The 2020 COVID–19 peer-reviewed journal manuscript about building water safety led by Prof. Whelton involved a collaboration with Professor Michele Prevost (Polytechnique Montreal, Canada).
 Helped design the 2020 webinar proposal (that was accepted) led by Prof. Stuart Khan (University of New South Wales, Australia) and submitted to the International Water Association (IWA) on building water safety in response to the COVID–19 pandemic. Participated in June 2020 webinar as the US expert for building water safety with Dr. Susanne Lee (UK), Michele Prevost (Canada), and Stuart Khan (Australia).
 Co-organized and co-initiator of the 2020 National Science Foundation funded Building Water System Collaborative in response to the COVID-19 pandemic, involving leading researchers from outside the U.S.
 Participated in the 2020 World Plumbing Council annual meeting panel about drinking water safety in buildings during the COVID-19 pandemic.
 Participated in the Royal Society of Public Health webinar on COVID and drinking water safety in buildings.
 Meeting with British Columbia Ministry of Health, City of Vancouver to discuss drinking water contamination and response to wildfire, July 2021.
 Presented a webinar to the Canadian Interior Ministry of Health on wildfires and water systems, May 2022.
 Visited Denmark Technical University researchers (Copenhagen, Denmark) to learn about pipe rehabilitation and disaster response and recovery issues. December 2023.
 Visited the London Fire Brigade (Soho/London, England) to learn about 2020 London Wildfire response. This was part of the Spring Break Study Abroad course I led. March 2023.
 Visited Anglian Water Company (Peterborough, England), the largest water utility in the U.K, to learn about their approach to drinking water quality monitoring, preparedness and response to extreme events. This was part of the Spring Break Study Abroad course I led. March 2023.
 Met with the Drinking Water Inspectorate, Chief Inspector (London, England), the drinking water regulator in England and Wales to learn about water quality and share U.S. fire discoveries. This was part of the Spring Break Study Abroad course I led. March 2023.
 Visited *The Guardian and the Observer* media organization to learn about their approach to journalism on issues in the U.K. and beyond. This was part of the Spring Break Study Abroad course I led. March 2023.
 Visited Imperial College (London, England) to learn about wildfire dynamics and the Grenfell Tower Incident. This was part of the Spring Break Study Abroad course I led. March 2023.
 Visited (Barcelona, Spain) CERTEC - Centre d'Estudis del Risc Tecnològic, UPC - Universitat Politècnica de Catalunya to learn about their approach to wildfire mitigation and community response research and explore European partnerships. March 2026.
 [INVITED] Speaker (Glasgow, Scotland). International Water Association Workshop on Wildfires: Enhancing Utility Resilience To Wildfire Events. Invited by Anglian Water, UK. October 7, 2026.
 [ACCEPTED] Speaker (Coimbra, Portugal). 19th International Wildland Fire Safety Summit/ 10th International Conference on Forest Fire Research. November 6, 2026.

Service to pre K–12 activities

The Basics of Military Drinking Water – Gunpowder Day. Hereford Middle School. Monkton, MD. May 2002.
 Free Radicals and Drinking Water. Virginia Tech. July 2005.
 Oxidation, Polyethylene, and Drinking Water. July 2006.
 Polymer Oxidation in Environmental Engineering. Virginia Tech, Blacksburg, Virginia. NSF Summer Undergraduate Research Program (SURP), Let's Think Radically Summer Camp. Blacksburg, Virginia. July 2008.
 Water Treatment for Turbidity Removal from Mobile Bay, Alabama. Davidson Middle School Summer Camp, University of South Alabama. Mobile, Alabama. June 2011.
 Mobile Regional Science Fair, Volunteer Judge, University of South Alabama, Mobile, Alabama. March 2013.

Why Environmental Engineering is So Cool. Purdue University Minority Engineering Program (MEP) High School Outreach Event. 9th graders ITW David Speer Academy Chicago, Illinois. West Lafayette, Indiana. November 2014.

Dilution and Pollution. Ben & Maxine Miller Child Development Laboratory School, West Lafayette, Indiana. Fall 2016.

Brass Instruments. Ben & Maxine Miller Child Development Laboratory School, West Lafayette, Indiana. Spring 2017.

Dilution and Pollution. Ben & Maxine Miller Child Development Laboratory School, West Lafayette, Indiana. Fall 2017.

Brass Instruments. Ben & Maxine Miller Child Development Laboratory School, West Lafayette, Indiana. Spring 2018.

Dilution and Pollution. Ben & Maxine Miller Child Development Laboratory School, West Lafayette, Indiana. Spring 2018.

Pollution, Dilution, and Mixing Demonstration. Ben & Maxine Miller Child Development Laboratory School. Purdue University, West Lafayette, Indiana. 2016, 2017, 2018.

Water Treatment. Klondike Elementary School. West Lafayette, Indiana. March 2023.

Journal peer-review

(many not shown) *Nature Nanotechnology, Natural Hazards, Environmental Science and Technology Letters, Environmental Science and Technology, ACS EST Water, AWWA Water Science, ASCE Journal of Environmental Engineering, Journal of Water and Health, Water Science and Technology, Environmental Science: Water Research and Technology, Environmental Science: Processes and Impacts, Environmental Pollution, Journal of Hazardous Materials, Journal of Environmental Health, International Journal of Hygiene and Environmental Health, Water Supply, PLOS Water, Science of the Total Environment, Journal of Environmental Chemical Engineering, Chemosphere, Journal of the American Water Works Association, Journal of Environmental Quality, Water Research, Critical reviews in Environmental Science and Technology, Transportation Research Record, ASCE Journal of Professional Issues in Engineering Education and Practice, Fire Technology, Polymer Degradation and Stability, Polymer Testing, Journal of Cleaner Production, Journal of Composite Materials, Building and Environment, Inhalation Toxicology, Journal of Applied Toxicology, ACS Sustainable Chemistry & Engineering, Resources, Conservation, and Recycling, Journal of Environmental Chemical Engineering, Journal of Applied Polymer Science, International Journal of Wildland Fire, and others.*

7. OTHER RELEVANT INFORMATION

Public and media engagement

Feature video of Prof. Whelton's work by the U.S. National Science Foundation, television and other media.

Engineers investigate possible impacts of the Elk River chemical spill, National Science Foundation feature video, Science Nation, 3:12 min. [RAPID response chemical spill research](#) online April 2015

This video highlights the role of science and engineering in protecting the environment and public health. It also underscores the critical role of university community to work with the public and government to rapidly apply their expertise to disasters.

In 2023, a 24 minute TV episode was developed and published online by Bloomberg featuring Prof. Whelton's efforts providing scientific support to the 2023 East Palestine Ohio Chemical Spill and Chemical Fires disaster. The video is entitled "The Unknown Catastrophe Left Behind in East Palestine". The video is posted online at <https://www.youtube.com/watch?v=gsUvUDyDs-k>.

In 2023, a 21 minute video was developed and published online by the YEARS Project featuring Prof. Whelton's efforts providing scientific support to the 2023 East Palestine Ohio Chemical Spill and Chemical Fires disasters. The video is entitled "Small Town Explosion: What Really Happened in East Palestine?" The video is posted online at <https://www.youtube.com/watch?v=IFBagc-6k8g>

In 2023, a 6 minute video was developed and published online by BBC Storyworks Productions, LLC featuring Prof. Whelton's efforts responding to communities when wildfires occur. The video explained the complexity of the wildfire drinking water contamination issues and decision-making questions. The video is posted online at <https://www.youtube.com/watch?v=8cGc68MjDuw>.

In 2023, a 26 minute TV episode was developed and published online by PBS produced by Building Performance Workshop, LLC featuring Prof. Whelton's efforts making discoveries and providing support to communities in

response to fire emergencies and disasters. The topic is “The Science of Home Fires and Wildfire: Episode 301 of Home Diagnosis”. The video is posted online at <https://www.youtube.com/watch?v=CNGe-9uO8bU>.

In 2023, a 26 minute TV episode was developed and published online by PBS produced by Building Performance Workshop, LLC featuring Prof. Whelton discussing discoveries about drinking water impacts of new plastic pipes in buildings. The topic is “What’s that Smell? Episode 307 of Home Diagnosis”. The video is posted online at <https://www.youtube.com/watch?v=RHT71u1jpbo>.

In 2023, a 26 minute TV episode was developed and published online by PBS produced by Building Performance Workshop, LLC featuring Prof. Whelton discussing discoveries about indoor health impacts and concerns of plastic drinking water pipes in buildings and the repair of buried sewer pipes outside the building. The topic is “The Outside Sneaking In – Episode 310 of Home Diagnosis”. The video is posted online at <https://www.youtube.com/watch?v=j-tfiprznE>.

Notable Mentions by Others

In 2014, a public video was developed and published online by Ohio State University student Krista Bryson featuring Prof. Whelton’s research team’s efforts in West Virginia. The video explained to West Virginia’s residents how to flush their plumbing systems and minimize chemical exposure. Video is posted online at [West Virginia Water Crisis: Exclusive *Crucial* Information about Flushing](#). 2,000 views during the early days of the West Virginia drinking water contamination incident response in January 2014.

Testimony to U.S. Senate Environment and Public Works Committee by Eric Olson, NRDC mentioned Prof. Whelton’s chemical spill research project while highlighting the need for more study. February 4, 2014. Subcommittee on Water and Wildlife of the U.S. Senate Committee on Environment and Public Works, hearing entitled Examination of the Safety and Security of Drinking Water Supplies Following the Central West Virginia Drinking Water Crisis.

Science Magazine Editorial by Profs. Julie Zimmerman and Paul Anastas, Yale University. January 2015. [Mentioned Prof. Whelton’s chemical spill research]

ASEE PRISM Magazine report by Homes–Douglas, P. Off–Campus Crusaders. March–April 2016. <http://www.asee-prism.org/off-campus-crusaders-mar-apr/> [Mentioned Prof. Whelton’s chemical spill research]

Journal of the American Medical Association (JAMA). Editorial by Dr. Kenneth Kizer entitled [Extreme Wildfires—A Growing Population Health and Planetary Problem](#). [Mentioned Prof. Whelton team’s work on wildfires and water contamination]

In 2024, the U.S. National Academies of Science, Engineering, and Mathematics interactive project website about the *Public Health Workshop in Response to the Train Derailment in East Palestine*. [Mentioned Prof. Whelton’s position on collaboration between agencies for improving public health response] <https://nap.nationalacademies.org/resource/27441/interactive/>

In 2024, the Bipartisan U.S. Wildland Fire Mitigation and Management Commission invoked numerous studies and recommended national policy for supporting public health and public water systems. <https://www.usda.gov/sites/default/files/documents/wfmmc-final-report-09-2023.pdf>

Testimony to U.S. Senate Environment and Public Works Committee by Madelene MacDonald, Denver Water invoked Prof. Whelton’s wildfire disaster response research project while highlighting the need for research to help communities, March 12, 2024. U.S. Senate Committee on Energy and Natural Resources hearing to Examine the Findings and Recommendations of the Wildland Fire Mitigation and Management Commission.

In 2026, California State Assemblyman introduced [Legislation to End Insurance Driven Fire Testing and Establish Science Based Safety Standards](#). Sacramento, California. January 27, 2026. [Quote from Prof. Whelton as a result of his team’s work and experience after the L.A. Fires and other disasters nationwide]

Press Releases Issued by Funding Agencies and the National Academies of Science, Engineering, and Mathematics

US National Science Foundation. [NSF awards rapid response grants to study West Virginia chemical spill](#). January 30, 2014.

US Environmental Protection Agency. [EPA provides \\$4 million to two universities for drinking water research](#). January 12, 2017.

US National Science Foundation. [Water quality could be altered in buildings closed during COVID-19 pandemic](#). April 21, 2020.

National Academies of Science, Engineering, and Mathematics (NASEM). [As Commercial Districts Come Back to Life, Water Stagnation Will Pose Health Risks](#). June 11, 2020.

National Academies of Science, Engineering, and Mathematics (NASEM). [Protecting Health Before, During, and After Wildfires](#). September 3, 2026.

Press Releases Issued by Purdue University

Purdue University. [Report: culvert repairs pose environmental risks, require safeguards](#). December 17, 2014.

Purdue University. [Research provides guidance to clean plumbing systems in buildings after water contamination](#). August 10, 2015.

Purdue University. [Project focuses on reducing pathogen threat in low-flow water systems](#). January 12, 2017.

Purdue University. [Materials emitted by a water pipe-repair method may pose health risks, new safeguards and research needed](#). July 27, 2017.

Purdue University. [Review of common construction practice finds environmental contamination, need for improved oversight and monitoring](#). May 15, 2018.

Purdue University. [Flint, Michigan lead crisis should have buried the city in water bottles. So, why didn't it?](#) December 4, 2018.

Purdue University. [Study: Your home's water quality could vary by the room – and the season](#). February 19, 2020.

Purdue University. [Water quality could change in buildings closed down during COVID-19 pandemic, engineers say](#). April 13, 2020.

Purdue University. [Expert: Effects of COVID-19 on K-12 school building water systems](#). July 21, 2020.

Purdue University. [Purdue short course covers building water system basics, offers guide for bringing idled systems back, operating safely](#). November 5, 2020.

Purdue University. [Panel probes relationship between scientists and journalists, highlighting areas for growth](#). February 15, 2021.

Purdue University. [Answers to faster recovery from a wildfire are in the water](#). March 15, 2022.

Purdue University. [Engineering the Unknown: EEE students help communities restore water quality](#). June 2022.

Purdue University. [Something's in the air: It's nanoplastic pollution](#). October 6, 2022.

Purdue University. [Purdue professor 'brings the world' to help after Maui, Hawaii, wildfires](#). September 25, 2023.

Purdue University. [Purdue University's top media stories of 2023 - Purdue University News](#). December 19, 2023.

Purdue University. [Purdue researchers travel to help households, businesses recover from LA wildfires](#). February 18, 2025.

Prof. Whelton's led teams have focused on infrastructure, disasters, and recovery and their results and impacts have been broadly discussed nationally and internationally. These have been in print, radio, online, and television media. Information shown below are not replicated stories but unique reports about his team's work, findings, and implications.

Radio

NPR All Things Considered
NPR Living on Earth
Indiana Public Radio / WYMI
California Public Radio / KAZU
West Virginia Metro News w/ Hoppy Kercheval
Top of Mind w/ Julie Rose / BYU Radio
ABC Radio Melbourne w/ Shelley Ware (Australia)
KCRW Press Play Los Angeles

NPR Here and Now
All Sides with Ann Fisher at WOSU
Indiana Public Radio / WBAA
West Virginia Public Radio
620WTMJ-Milwaukee
KNX1070 Los Angeles John Nuno
American University Radio/WAMU
Wisconsin Public Radio

Print

The New York Times
USA Today
Indy Star
Sacramento Bee
US News and World Report
Charleston Daily Mail
Mobile Press Register
The Exponent
Statesman Journal
Popular Science
Washington Post
Honolulu Civil Beat
Washington Examiner

The Wall Street Journal
Chicago Tribune
Business Insider
Associated Press
West Virginia Gazette
The Herald Dispatch
New Haven Independent
Journal Sentinel
Santa Cruz Sentinel
Purdue Exponent
LA Times
Pittsburgh Post-Gazette

Online

Scientific American
Esquire
Salon
Huntington News
Circle of Blue

The Huffington Post
Bloomberg
Think Progress
The Columbia Chronicle
MSNBC

Derby Informer
Inside Climate News
Ensia
SourceableNet
ARLNow
Consumer Reports
STAT
Energy & Environment News
Honolulu Civil Beat
The Guardian
Los Angeles Times
Times Observer
Voice of American News
Vox
Yale Climate Connections

Chico News and Review
Nature
GRIST
Arlington Cardinal
Street Roots
EoS
CalMatters
Greenwire
Pew Charitable Trusts STATELINE
Washington Times Herald
Axios
The Daily Caller
Christian Science Monitor
Boulder Reporting Lab
Stars and Stripes

Television

CBS Evening News with Scott Pelley
West Virginia Decision Makers Sunday Morning
NBC News
HuffPost Live
CBS WOWK
NBC Local 15 WMPI
WISHTV8 Indianapolis
FOX59
CBS Affiliate WTVR
CBS WHIO7
CBS KHON4
NBC 9NEWS Denver
PBS Home Diagnosis with Grace and Corbett Lundsford
WLFJ
News Nation
WKBN
19 News Cleveland

CBSN
CNN
Bloomberg
ABC WCHS8
NBC WTAP
NBC WSAZ
FOX 10TV-WALA
KXTV ABC10
Alabama Public Television
ABC KITV4
Hawaii News Now
BBC WORLD News
Bloomberg Investigates
NBC WFMJ 21
FOX Business
Scripps News

Industry and trade association media

C&E (Chemical & Engineering) News
Contractor Magazine
Water Quality and Products
International Water Association (IWA)
Building Green.com
Angie's List
Laboratory Equipment
Waterworld
Environmental Health News
Lancaster Farming
Yellow Scene Magazine

Chemistry World
Plastics News
Safety and Health News
Environmental Building News
Civil Engineering Magazine
Green Building Advisor
WaterOnline
Safety and Health Magazine
The Center Square
Education Week

Blogs

ASDWA Blog
Union of Concerned Scientists Blog
National Resources Defense Council (NRDC) Blog
International Water Quality Association (IWA) Blog
Forest Hills Connection

West Virginia Water Crisis Blog
The Plastic Ocean Project Blog
My World's on Fire

Podcasts

The Water Values

Geek Speak

The Collective Tap	Purdue Engineering
WQA Radio – Water Quality Variance in Homes	Mass Construction Show
Full Steam Ahead: A PODCAST About Purdue	Animalcast PODCAST
National Science Foundation Science Nation	We Grow California
Public Health On Call: 1042 - The Red Hill Water Crisis: How Jet Fuel Contaminated the Water Supply of More Than 60,000 People, Apr 27, 2026	

Websites for discovery permeation, public and industry education

To share scientific discoveries into the public domain and make them accessible to different public health, industry, and general public stakeholders, Prof. Whelton has established websites for different efforts. These sites are popular in the sectors they were designed to impact.

CIPPSafety.org Website

The www.CIPPSafety.org website features Purdue research discoveries pertaining to a pipe rehabilitation process called the cured-in-place-pipe (CIPP) technique. These topics include worker and public safety, toxicology, best practices, environmental pollution, and technology. The site has been used to educate health officials, workers, regulators, and municipal leaders through online education.

PlumbingSafety.org Website

The www.PlumbingSafety.org website features Purdue research discoveries pertaining to the safety of building water systems for residential and commercial buildings but also includes disaster response and recovery efforts (non-plumbing). This includes featured Purdue studies, posted presentations delivered, scientific opinions on federal and state legislation, and community support actions.

In response to the 2019 COVID-19 outbreak, multiple state health departments and drinking water primacy agencies, as well as public health associations listed this website on their list of resources to their stakeholders.

Videos Whelton and his Team Created and Posted Publicly

Why Flush Building Water Systems? April 2020. YouTube. <https://www.youtube.com/watch?v=LVwRsTnj63g>
 Why Are Calculations Needed to Design Building Water System Flushing Plans? April 2020. YouTube. <https://www.youtube.com/watch?v=9OHxICsaaBg>
 Wildfire attack of water distribution systems: Prepare, respond, and recover. September 20, 2020. YouTube. https://www.youtube.com/watch?v=rbjp_CJFZgw&feature=youtu.be
 Lessons from the Field: Variability of Single Family Home Drinking Water Quality. January 2021. YouTube. <https://www.youtube.com/watch?v=fsJa67DAkMs>
 Lessons from the Field: Transitioning to Building Rainwater Plumbing Systems. May 2021. YouTube. <https://www.youtube.com/watch?v=GoKvmSiQgAQ>
 Lessons from the Lab: Thermal Degradation of Plastic Pipes and Drinking Water Contamination. May 2021. YouTube. <https://www.youtube.com/watch?v=ZYSP-A0L39Q>
 Lessons from the Field: Chemistry and Microbiology Discoveries in a 7 Year Old Green School Building. May 2021. YouTube. <https://www.youtube.com/watch?v=JuRGxF0HZHM>

Prof. Whelton also responds to individual requests from health officials, private businesses, and through his awhelton@purdue.edu email address, but also cippsafety@purdue.edu and plumbingsafety@purdue.edu email addresses.

Memberships in academic, professional and scholarly societies

American Water Works Association (AWWA), Member, 1998-Present.

- National Security and Emergency Preparedness Committee, 2005-Present; Taste-and-Odor Committee, 2002-Present. University Student Activities Committee, 2013-Present, Scholarship Award Reviewer 2017-Pres; Water Main Rehab Committee, 2013-Present.
- Virginia Section. Member, Security and Emergency Preparedness Committee, 2005-2007; Member, Research Committee, 2005.
- Technical Session Moderator, AWWA Water Security Congress, Public Health Surveillance Track. Washington, D.C., 2006.
- Alabama / Mississippi Section, Volunteer judge for taste test. 2011. 2012, Scholarship Award Committee Member, 2013-2015.

- Technical Session Co-organizer, AWWA ACE 2019, Beyond the Meter: Plumbing. Denver, CO, 2019.
- Poster Symposium Co-organizer and Moderator, AWWA ACE 2019, Beyond the Meter: Plumbing. Denver, CO, 2019.
- Poster Symposium Co-organizer and Moderator, AWWA ACE 2021, Beyond the Meter: Plumbing. San Diego, 2021.
- Chair, University Student Activities Committee, elected 2020-2021.
- Leader, Adhoc Education Subcommittee, Premise Plumbing, July 2020 – June 2022
- Member, AWWA Speaker Selection Committee for annual AEESP lecture, 2021
- Technical Session, Moderator, AWWA Water Quality Technology Conference. Wildfires and Water Systems Track. Cincinnati, Ohio. 2022.
- WQTC Young Professional Distinguished Lecture Selection Committee, 2021 – 2024.
- Technical Session, Creator and Moderator, AWWA Annual Conference and Exposition. WED59 - Wildfires Are Here: Learn What Utilities Should Expect and Should Do to Respond and Recover. Anaheim, California. 2024.

American Chemical Society (ACS), 2008 – Present.

American Association for the Advancement of Science (AAAS), 2019 – Present.

American Society of Plumbing Engineers (ASPE), 2020 – Present.

American Public Health Association (APHA), Member, 2022 – Present.

American Society of Civil Engineers (ASCE), Member, 2009 – 2012, 2024 – Present.

American Society for Testing and Materials (ASTM), F17 Plastic Pipe and Fittings Committee, 2009 – 2011.

Association of Environmental Engineering and Science Professors (AEESP), 2009 – Present, Member.

- Students Services Committee. 2011 – 2012, Chair; 2012 – 2013, Vice – Chair.
- Co – led July 2011 Academic Job Search Workshop that involved 35 graduate student and postdoctoral participants as well as 30 junior and senior faculty.
- Volunteer reviewer for AEESP Academic Job Application Review (AJAR) Program, 2012, 2014.
- Invited participant, AEESP Strategic Planning Committee Session, 2021.

International Water Quality Association (IWA), Member, 2009 – 2012.

National Association of City and County Health Officials (NACCHO), 2021 Virtual Annual Education Conference [not member]

- Moderator, Session Public Health's Supporting Role when Drinking Water Systems are Chemically Contaminated, 2021
- Moderator, Session HAZMAT Incidents Caused by Sewer Cured-in-Place-Pipe (CIPP) Projects: Lessons for Health Officials and Emergency Responders, 2021
- Moderator, Session Building Water Safety Updates, 2021

National Environmental Health Association (NEHA)

- Wildfire environmental health response and recovery guide task group, 2023.

Standard Methods for the Examination of Water and Wastewater Committee, Section 2170 FPA. Member, 2007.

Water Environment Federation (WEF), Member, 2010 – 2013.

Legal involvement

Mobile Area Water and Sewer System (MAWSS) vs. Steak'N Shake and Golden Corral. Expert Witness Deposition: Fall 2013.

Mobile Area Water and Sewer System (MAWSS) vs. Plains Southcap, LLC. Expert Witness Deposition: Fall 2013. Testified: Fall 2013.

Good vs. Eastman Chemical Company, American Water Works Service Company, West Virginia American Water, Gary Southern, Dennis Ferrell. Fact Witness Deposition: Jun. 11, 2015. United States Federal District Court of West Virginia.

Loft vs. Insituform and City of Deerfield Beach, Florida. Expert Consultation. Expert Witness Deposition: May 20, 2022 and July 8, 2022. Broward County, Florida.

Lake Madrone Water District, California. Expert Consultation. Arbitration Witness. United States Civilian Board of Contract Appeals (CBCA) 7903-FEMA. February 4, 2024. California

Shipp et al. v. Charles Truitt and Latoya Hughes. Expert Witness. United States District Court, Northern District of Illinois, Eastern Division. Case No. 1:22-cv-00888. Springfield, Illinois.

Other awards and honors

U.S. Army CHPPM Headquarters Office Commander's Coin, 2002

U.S. Army CHPPM Western Office Commander's Coin, 2003

Fort Stewart and Hunter Army Airfield, GA Commander's Coin, 2004

Nominated as one of five "Got Science" Champions by the Union of Concerned Scientists, 2014

Other information

Donations received to support research and engagement activities from anonymous donors, LightBox, The Spinaccitti Family, R&S Kayne Foundation