

Siddhartha Roy, Ph.D., EIT
Environmental Engineer
Chapel Hill NC (United States)

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Nationalities: India (Citizen by birth); USA (Permanent Resident: EB1-A “Extraordinary Ability”).

ACADEMIC HISTORY AND CERTIFICATIONS

Virginia Tech, College of Engineering – Blacksburg, VA

2018 *Ph.D. in Civil Engineering (program: Environmental Engineering)*

+ *Graduate Student of the Year*

2015 *M.S. in Environmental Engineering*

+ *“Water INTERface” IGEP Fellow*

2014 *Interdisciplinary Water and Health Sciences Graduate Certificate*

Nirma University, Institute of Technology – Ahmedabad, India

2010 *B.Tech. in Chemical Engineering*

+ *First Class with Distinction*

State of Virginia, Engineer in Training (EIT)

2020 *Environmental Engineering License #0420072931*

PROFESSIONAL APPOINTMENTS

2022+ **The Water Institute, University of North Carolina**, Chapel Hill, NC

Research Associate (Oct 2022-present)

2012-22 **Virginia Tech Department of Civil and Environmental Engineering**, Blacksburg, VA

Research Scientist (Oct 2020-Oct 2022)

Postdoctoral Research Associate, US Water Study Team founding co-leader (2018-20)

Graduate Research and Teaching Assistant, Laboratory of Dr. Marc Edwards (2012-18)

2010-12 **Cognizant Technology Solutions**, Merck Europe Support Project, Pune, India

Programmer Analyst (Business Intelligence and Data Analytics), Innovation Lead

HONORS AND AWARDS

2016-22

- [STAT Wunderkind 2021](#), STAT News/The Boston Globe
- [IWA Young Leadership Award 2020-22](#), International Water Association (IWA)
- [ASCE New Face of Civil Engineering Professionals](#), American Society of Civil Engineers (ASCE)
- [AAAS Early Career Award for Public Engagement with Science / Finalist](#), American Association for the Advancement of Science (AAAS)
- [WEF Water Leadership Institute Class of 2018](#), Water Environment Federation (WEF)
- Paper on [perverse incentives in academia](#) placed in Top 1% of Engineering (cited 300+ times)
- Scientist Sentinel: Civic Engagement & Leadership Program (competitive; declined), COMPASS
- Who's Who in America list
- [Rising Stars of the Water Industry](#), WQP Magazine

- [Graduate Student of the Year](#), Virginia Tech
- [Virginia AWWA Graduate Student Scholarship](#), VA American Water Works Association
- Ut Prosim Scholar, Virginia Tech
- [Graduate Student Service Excellence Award](#), Virginia Tech
- National Video Competition [Second Prize](#), Association of Environmental Engineering and Science Professors (AEESP) for the documentary: <https://youtu.be/t0ZNYHB7TvE>

20013-15

- Water Is Life Award, American Civil Liberties Union (ACLU) - Michigan
For "your courage to shine a light on the Flint water crisis protecting the health of countless residents"
- Third Prize (National), Fresh Ideas Poster Competition w/ K Phetxumphou at AWWA ACE 2015
- Citizen Scholar Award, Virginia Tech
- [Class of 2014: Outstanding Winter Graduate](#), Virginia Tech
- Engineers Without Borders-USA Global Leadership Program Scholarship, Black and Veatch Fdn
- Interdisciplinary Graduate Education Program (IGEP) Fellowship 2014-15, Virginia Tech
- Student Business Concept Challenge Finalist, Virginia Tech Knowledge Works

Flint Water Study Team Awards (2015-18)

- [Kellogg Foundation Community Engagement Scholarship Award](#), W. K. Kellogg Foundation
- UPCEA Engagement Award, University Professional and Continuing Education Association
- [The Jean and Leslie Douglas Pearl Award](#), Cornell Douglas Foundation
- [Special Recognition](#), Earth Day Network Climate Leadership Gala, Washington DC
- [Alumni Award for Outreach Excellence](#), Virginia Tech (*wrote the award proposal*)
- [Newsmaker of the Year](#), Virginia Professional Communicators
- [Public Integrity Award](#), American Society for Public Administration
- [Citizen Scholar Award](#), Virginia Tech (*wrote the award proposal*)
- Proclamation (Commendation), City of West Hollywood California
- Certificate of Appreciation, City of Flint Michigan, 2015

TED TALK

[Science in service to the public good](#) (over 1.6 million views; debuted on TED.com in 04/2017).

SCHOLARLY PUBLICATIONS

Peer-reviewed publications

(#: peer-reviewed conference paper, ^: advised undergraduate student, *: corresponding author)

Per [Google Scholar](#): total citations = 985; h-index = 10

1. [Roy, S.*](#) and M.A. Edwards. Addressing the Preprint Dilemma. *International Journal of Hygiene and Environmental Health*. doi: 10.1016/j.ijheh.2021.113896.
2. [Roy, S.*](#) and M.A. Edwards. Are there excess fetal deaths attributable to waterborne lead exposure during the Flint Water Crisis? Evidence from Bio-kinetic Model Predictions and Vital Records. *Journal of Exposure Science and Environmental Epidemiology*. doi: 10.1038/s41370-021-00363-z
3. [Roy, S.*](#), K. Mosteller, M. Mosteller, K. Webber, V. Webber, S. Webber, L. Reid, L. Walters, and M.A. Edwards. 2021. Citizen science chlorine surveillance during the Flint, Michigan federal water emergency. *Water Research*. doi: 10.1016/j.watres.2021.117304.

4. # Lightner, T.*, S. Roy, M.A. Edwards and J. London. 2021. Centering the public: A narrative analysis of engineering graduate students' journeys navigating public-inspired science work. *ASCE Annual Conference and Exposition 2021*, Jul 25-28, 2021.
5. Roy, S.* and M.A. Edwards. 2020. Efficacy of Corrosion Control and Pipe Replacement in Reducing Citywide Lead Exposure during the Flint, Michigan Water System Recovery. *Environmental Science: Water Research & Technology*. doi: 10.1039/d0ew00583e
6. Roy, S.*, M. Tang, and M.A. Edwards. 2019. Lead Release to Potable Water during the Flint, Michigan Water Crisis as revealed by Routine Biosolids Monitoring Data. *Water Research*. doi: 10.1016/j.watres.2019.05.091
7. Roy, S.* and M.A. Edwards. Citizen Science During the Flint, Michigan Federal Water Emergency: Ethical Dilemmas and Lessons Learned. *Citizen Science: Theory and Practice*. doi:10.5334/cstp.154
8. Roy, S.* and M.A. Edwards. Preventing another Lead (Pb) in Drinking Water Crisis: Lessons from Washington DC and Flint MI contamination events. *Current Opinion in Environmental Science & Health*. doi:10.1016/j.coesh.2018.10.002
9. Roy, S.*, P. Smith[^], G. House[^], and M.A. Edwards. 2018. Cavitation and Erosion Corrosion Resistance of Nonleaded Alloys in Chlorinated Potable Water. *CORROSION*. doi:10.5006/2939
10. Roy, S.* and M.A. Edwards. 2018. Interactive Effects of Water Chemistry, Hydrodynamics, and Precipitated Calcium Carbonate Causing Erosion Corrosion of Copper in Hot Water Recirculation Systems: Case Study and Experimental Work. *CORROSION*. doi:10.5006/2937
11. Pieper, K.J., M. Tang, R. Martin, L. Walters, J. Parks, S. Roy, C. Devine, and M.A. Edwards*. 2018. Evaluating Water Lead Levels during the Flint Water Crisis. *Environmental Science & Technology*. doi:10.1021/acs.est.8b00791
12. Roy, S.*, J.M. Coyne, J.A. Novak, and M.A. Edwards. 2017. Flow-induced failure mechanisms of copper pipe in potable water systems. *Corrosion Reviews*. doi:10.1515/correv-2017-0120
13. Edwards, M.A.* and S. Roy. 2016. Academic Research in the 21st Century: Maintaining Scientific Integrity in a Climate of Perverse Incentives and Hyper-competition. *Environmental Engineering Science*. doi:10.1089/ees.2016.0223.
> Top 1% cited paper in Engineering academe; 'Most Read' paper in journal's history; 250,000+ downloads; Trended #1 on Reddit Science; Featured in [Science News](#) & [Chemistry World](#)
14. # Roy, S.* and M.A. Edwards. 2016. Effects of Calcium Carbonate precipitation on erosion corrosion of non-leaded brass fittings in potable hot water systems. *Proc. NACE CORROSION 2016*, Mar 6-10, 2016, Vancouver, Canada.
15. Phetxumphou, K., S. Roy, B.M. Davy, P.A. Estabrooks, W. You, and A.M. Dietrich*. 2016. Assessing clarity of message communication for mandated USEPA drinking water quality reports. *Journal of Water and Health*, doi:10.2166/wh.2015.134
16. Roy, S.*, K. Phetxumphou, A.M. Dietrich, P.A. Estabrooks, W. You, and B.M. Davy. 2015. An Evaluation of the Readability of Drinking Water Quality Reports: A National Assessment. *Journal of Water and Health*, doi:10.2166/wh.2015.194
17. # Lambrinidou, Y.*, W.J. Rhoads, S. Roy, E. Heaney, G. Ratajczak, and J. Ratajczak. 2014. Ethnography in Engineering Ethics Education: A Pedagogy for Transformative Listening. *ASCE Annual Conference and Exposition*, Jun 15-18 2014, Indianapolis, IN.

Peer-reviewed conference presentations (* implies invited; ** implies conference poster; "peer-reviewed" = abstract reviewed before acceptance)

1. ** Roy, S., K. Mosteller, M. Mosteller, K. Webber, V. Webber, S. Webber, L. Reid, L. Walters, and M.A. Edwards. Citizen science chlorine surveillance during the Flint, Michigan federal water emergency. IWA Disinfection + DBPs, Jun 27-Jul 1, 2022, Milan, Italy.

2. Roy, S. and M.A. Edwards. NSF Fellows' attitudes on the research climate in STEM academia. AEESP Conference 2022, Jun 28-30, 2022, St. Louis, MO.
3. ** Roy, S. and M.A. Edwards. Exposing Infrastructure Inequality and Environmental Injustice through a Citizen Science-supported Graduate Training Program: The US Water Study Experience. C*Sci 2022, May 23-26, 2022, Virtual.
4. Roy, S., K. Mosteller, M. Mosteller, K. Webber, V. Webber, S. Webber, L. Reid, L. Walters, and M.A. Edwards. Citizen science chlorine surveillance during the Flint, Michigan federal water emergency. AWWA WQTC 2021, Nov 7-10, 2021, Tacoma WA.
5. Wait, K., S. Roy, and M.A. Edwards. Can Iron and Manganese Deposits on Copper and Stainless-Steel Plumbing Produce Rapid Pipe Failures at Water Temperatures >60°C? AWWA WQTC 2021, Nov 7-10, 2021, Tacoma WA.
6. ** Edwards, M.A. and S. Roy. A "Public Inspired Science" Graduate Training Program. US National Academy of Engineering Promising Practices, 2021.
7. Roy, S. and M.A. Edwards. Are there excess fetal deaths attributable to waterborne lead exposure during the Flint Water Crisis? Evidence from Bio-kinetic Model Predictions and Vital Records. American Chemical Society (ACS) Fall 2021, Aug 22-26, 2021, Atlanta GA.
8. ** Odimayomi, T., S. Roy, and M.A. Edwards. Tracking Lead (Pb) Release to Potable Water through Biosolids Data in Six Cities across North America: Challenges and Opportunities. AWWA ACE 2021, Jun 14-17, 2021.
9. Roy, S., M. Tang, and M.A. Edwards. Documenting Continued Reductions in Lead Release to Potable Water in the Aftermath of the Flint, MI Water Crisis. AWWA Virtual Summit on Water Quality and Infrastructure, Dec 8-10, 2020.
10. Edwards, M.A., J. Purchase, K.G. Lopez, and S. Roy. Engineering Ethics and Citizen Science in Underserved Communities: Experiences of The US Water Study Team. AEESP Converging COVID-19, environment, health, and equity conference, Oct 16-Nov 20, 2020.
11. Roy, S., Pieper, K.J., Battle, C., Lopez, K.G., and M.A. Edwards. Citizen science monitoring for India's water sector: Tools and protocols from the US experience. AWWA India Annual Conference, Dec 13-14, 2019, Mumbai, India.
12. Roy, S., M. Tang, and M.A. Edwards. Lead (Pb) in water, childhood lead exposure, and adverse pregnancy outcomes during the Flint Water Crisis: Quantifying the "unknown". American College of Toxicology Annual Meeting, Nov 17-19, 2019, Phoenix, AZ.
13. Roy, S., M. Tang, and M.A. Edwards. Lead (Pb) Exposure and Associated Adverse Health Outcomes During the Flint, Mich. Water Crisis: Quantifying the "Unknown." AWWA WQTC, Nov 3-7, 2019, Dallas, TX.
14. Roy, S. and M.A. Edwards. The Promises and Perils of Citizen Science and Community Engagement witnessed in the Flint Water Crisis. International Society of Environmental Epidemiology, Aug 25-28, 2019, Utrecht, the Netherlands.
15. Roy, S. and M.A. Edwards. Anatomy of Public Health Crises: Flint MI and Washington D.C. Lead in Water Emergencies. International Society of Environmental Epidemiology, Aug 25-28, 2019, Utrecht, the Netherlands.
16. Roy, S., M. Tang, and M.A. Edwards. Lead Release to Potable Water during the Flint, Michigan Water Crisis as revealed by Routine Biosolids Monitoring Data. AWWA ACE, Jun 9-12, 2019, Denver, CO.
17. * Roy, S. Citizen science to monitor water quality in underserved communities and emergencies: Tools and protocols from the US experience. U.S.-Jordan Conference on Development and Policy Responses to the Syrian Refugee Crisis, Jun 4-7, 2019, Blacksburg, VA.

18. Roy, S. and M.A. Edwards. Citizen Science During the Flint, Michigan Federal Water Emergency: Ethical Dilemmas and Lessons Learned. AEESP Conference, May 14-16, 2019, Tempe, AZ.
19. Roy, S. and M.A. Edwards. A Case Study of Postmodern Science Anarchy and Ethics: The Flint, MI Federal Emergency. Forum on Philosophy, Engineering and Technology 2018, May 30-Jun 1, 2018, College Park, MD.
20. Roy, S. and M.A. Edwards. WRF 4658: Cavitation and Erosion Corrosion Resistance of Nonleaded Alloys in Chlorinated Potable Water. AWWA WQTC, Nov 12-16, 2017, Portland, OR.
21. Roy, S. and M.A. Edwards. Cavitation and Erosion Corrosion Resistance of Nonleaded Alloys in Chlorinated Potable Water. AWWA ACE, Jun 11-14, 2017, Philadelphia, PA.
22. * Roy, S. and M.A. Edwards. Science for the Public Good vs. Perverse Incentives in Academia. AAAS Annual Meeting, Feb 16-20, 2017, Boston, MA.
23. * Roy, S. and M.A. Edwards. The Flint Water Crisis: Responding to a Public Health Emergency. E.U. SAFEWATER Conference, Nov 23-24, 2016, Zurich, Switzerland.
24. Roy, S. and M.A. Edwards. Revisiting the public health tragedy in Flint and why we are ill-equipped to prevent another. APHA Annual Meeting and Expo, Oct 29-Nov 2, 2016, Denver CO.
25. Pieper, K.J., A. Katner, S. Roy, and M.A. Edwards. Lead in Water Equation: Understanding variables that influence lead in drinking water. UNC W&H, Oct 10-14, 2016, Chapel Hill, NC.
26. Roy, S. and M.A. Edwards. The Flint MI Water Crisis: Lessons in Communicating Science and Influencing Public Discourse with Research. AWWA ACE, Jun 19-22, 2016, Chicago, IL.
27. * Roy, S., K. Phetxumphou, A.M. Dietrich, P.A. Estabrooks, W. You, and B.M. Davy. Communicating Water Quality: Available tools for evaluation. UNC Water and Health Conference, Oct 26-30, 2015, Chapel Hill, NC.
28. Roy, S. and M.A. Edwards. Role of water hardness precipitation and flashing cavitation in erosion corrosion of copper in potable water systems. AWWA ACE Jun 7-10 2015, Anaheim CA.
29. ** Phetxumphou, K., ^ S. Roy ^, B.M. Davy, P.A. Estabrooks, W. You, and A.M. Dietrich. Evaluating readability and clarity of USEPA mandated Drinking Water Quality Reports: A National Assessment. AWWA ACE, Jun 7-10, 2015, Anaheim, CA. ^equal contribution
30. Roy, S. Revitalizing Ethics Training of STEM Graduates: The Tonawanda NY Experience. DuPont Summit on Science, Technology & Environmental Policy, Dec 5 2014, Washington, DC.
31. Roy, S. and M.A. Edwards. Erosion Corrosion of Copper as a function of temperature, flow rates and water hardness. AWWA ACE, Jun 8-12, 2014, Boston, MA.

Technical Reports

1. Purchase, J.M., S. Roy, A. Katner, K.J. Pieper and M.A. Edwards. 2022. Practical Applications of NSF/ANSI 53 Lead Certified Filters: Investigating Lead Removal, Clogging and Consumer Experience. *Final Report prepared for U.S. Housing and Urban Development.*
2. Roy, S., P. Smith, G. House, and M.A. Edwards. 2018. [Corrosion of Nonleaded Pump Impeller Alloys in Chlorinated Potable Water](#). *Water Research Foundation (WRF) Project 4658 Final Report*. WRF. Denver, CO.
3. Roy, S., G. House, and M.A. Edwards. 2018. Comparative Resistance of Six Copper Alloys to Erosion Corrosion in Simulated Potable Water. *Final Report prepared for Chase Brass.*
4. Roy, S. and M.A. Edwards. 2016. Hard CaCO₃ Particles Formed by Water Heating Exacerbate Copper Erosion Corrosion. *Final Report prepared for Copper Development Association.*

Editorials and columns in popular press (not peer-reviewed)

1. Edwards, M., A. Pruden, S. Roy, K. Faust, S. Masten. *After we tried to correct claims about 'deadly' water filters in Flint, we were accused of scientific misconduct—and that was just the beginning*. Retraction Watch. May 2022
2. Edwards, M., C. Yang, and S. Roy. *Who dares to speak up? An interview with Tuskegee whistleblower Peter Buxtun*. American Scientist. Jul-Aug 2021
3. Roy, S. *What can we learn from misinformation on scientific matters in the water space?* International Water Association. November 2020
4. Roy, S. and M. Edwards. *From Sewage Sludge, a New Perspective on the Flint Water Crisis*. Undark. September 2020 (syndicated: Mother Jones)
5. Roy, S. and M. Edwards. *Flint water crisis shows the danger of a scientific dark age*. CNN. March 2019
6. Roy, S. and M. Edwards. *Intègres comme des coureurs du Tour de France*. Books. March-April 2018
7. Roy, S. and M. Edwards. *Science is a public good in peril – here's how to fix it*. Aeon. Nov. 2017
8. Phetxumphou, K., S. Roy B.M. Davy, P.A. Estabrooks, W. You, and A.M. Dietrich. *Write Consumer Confidence Reports Customers Can Understand*. OpFlow. February 2017
9. Roy, S. *The Hand-in-Hand Spread of Mistrust and Misinformation in Flint*. American Scientist. January-February 2017
10. Rhoads, W.J., R. Martin and S. Roy. *We helped uncover a public health crisis in Flint, but learned there are costs to doing good science*. The Conversation (syndicated: PBS, Scientific American, Huffington Post). January 2016

PUBLIC SCHOLARSHIP AND SELECTED PRESS

Science Documentaries, Podcasts and Websites

1. Executive Producer. *The Public-inspired Science Podcast*. Two seasons on [Apple iTunes](#).
2. Executive Producer and Videographer. *The U.S. Water Study documentary series*. YouTube.
3. Producer and Narrator. *Flint Water Study – An ode to environmental engineers*. Award-winning science documentary: <https://youtu.be/t0ZNYHB7TvE>
4. Creator and curator. USWaterStudy.org
5. Creator and curator. FlintWaterStudy.org (over 1 million views) and social media (Facebook and Twitter).
My Twitter (@flintwaterstudy) engagement was the subject of a peer-reviewed journal article by science communication researchers (doi: [10.1177/1075547017751948](https://doi.org/10.1177/1075547017751948)).
6. Producer and Videographer. *Public Inspired Science*. US Water Study: <https://youtu.be/hnbXQ4Z0evo>
7. Script and Video-segment producer. *MacArthur Foundation 100&Change grant proposal video abstract "Science as a public good"*: <https://youtu.be/j8Y2Q7WPLOE>
8. Producer and Videographer. Water sampling videos for Flint, Michigan (<https://youtu.be/dEQDaPws2xk>), California schools (<https://youtu.be/pxg9X9NMMy4g>) and Virginia schools (<https://youtu.be/dcmgP4VEx50>).

Invited Keynote Lectures, Talks, and Expert Panels

1. AIChE ([Webinar](#)), 2016.
2. [AIHA/ASSE Conference](#) (Denver, CO), 2017.
3. Boston University (Boston, MA), 2022.
4. Cal Poly (San Luis Obispo, CA), 2022.
5. Chandler-Gilbert CC (Chandler, AZ), 2018.
6. Chapman University (Orange, CA), 2021.
7. George Walton Academy (Monroe, GA), 2020.
8. Georgetown University (Washington DC), 2022.
9. [ComSciCon 2016](#) (Cambridge, MA), 2016.
10. [Kids' Tech University](#) (Blacksburg, VA), 2018.
11. IWA [Emerging Water Leaders Forum](#), 2021.
12. Interpublic Group (virtual), 2022.
13. [Linda Hall Library of Science Engineering, and Technology](#) (Kansas City, MO), 2020.
14. Louisiana State Univ. (Baton Rouge, LA), 2020.
15. MIT (Cambridge, MA), 2018.
16. [Middlebury College](#) (Middlebury, VT), 2018.
17. [NJ Institute of Technology](#) (Newark, NJ), 2021.
18. Northwestern University (Evanston, IL), 2016.
19. Ohio AWWA (Columbus, OH), 2015.
20. [Phillips Exeter Academy](#) (Exeter, NH), 2016.
21. [Princeton University](#) (Princeton, NJ), 2018.
22. Purdue University (West Lafayette, IN), 2021.
23. Queen's University (Canada; Virtual), 2022.
24. [Rising Silo Brewery](#) (Blacksburg, VA), 2018.
25. Rutgers University (New Brunswick, NJ), 2022.
26. [Science Museum of VA](#) (Richmond), 2017, 2019.
27. [Science Writers Conf.](#) (San Antonio, TX), 2016.
28. [Slovenian Academy of Sciences and Arts](#) (Ljubljana, Slovenia), 2019.
29. Stanford University (Stanford, CA), 2021.
30. St. Lawrence Univ. (Canton, NY), 2022.
31. TCA Hollywood Press (Pasadena, CA), 2017.
32. [Tufts University](#) (Medford, MA), 2018.
33. University of Arizona (Tucson, AZ), 2022.
34. University at Buffalo (Buffalo, NY), 2020.
35. University of California LA (Virtual), 2022.
36. University of Cambridge (Virtual), 2023.
37. University of Florida (Gainesville, FL), 2022.
38. University of Houston (Houston, TX), 2021.
39. [Univ. of Maryland](#) (College Park, MD), 2017.
40. UMass Amherst (Amherst, MA), 2020.
41. [Univ. of Notre Dame](#) (South Bend, IN), 2017.
42. University of Virginia (Virtual), 2022.
43. Univ. of Wisconsin Madison (Virtual), 2022.
44. Virginia AWWA/VWEA [WaterJAM 2016 Keynote](#) (Virginia Beach, VA), 2016.
45. VA Historical Society (Richmond, VA), 2017.
46. [Wesleyan University](#) (Middletown, CT), 2018.
47. [W. Mich. University](#) (Kalamazoo, MI), 2016.
48. [WGBH Idea Lab](#) (Cambridge, MA), 2016.
49. World Health Organization (Geneva, Switzerland), 2017.

Media Coverage (Science Documentaries and Movies)

1. [PBS NOVA. 'Poisoned Water'](#), 2017 (*on Netflix; winner of AAAS Kavli Science Journalism award*).
2. BBC. FLINT, 2020.
3. [Virginia Tech. 'Cicero'](#), 2019
4. Discovery (UK)/National Geographic (US). Disasters Engineered. Season 02. Ep. 08. Contaminated Waters. 2020-21.

Media Coverage (Newspapers and Magazines)

Selected listing in alphabetical order.

1. [ABC News](#): Flint Water Crisis: How a Water Study Researcher Would Address the Damage (Jan 19, 2016)
2. [American Scientist](#): Moving Forward After Flint (May-June 2016 issue)
3. [Associated Press](#): Flint lead problem could be eased by recoating old pipes (Jan 22, 2016)
4. [ASCE News](#): Young Engineer Finds His Calling Through Flint Water Crisis Solutions (Feb 2019)
5. [ATTN](#): Flint, Michigan Has Been Charging Its Residents for Toxic Water (Jan 19, 2016)
6. [ATTN](#): The Water in Flint Is Better, but People Aren't Using It (Oct 21, 2016)
7. [Bloomberg BNA](#): Flint, Mich., Didn't Follow Drinking Water Controls (Oct 20, 2015)

8. [Burlington Free Press](#): Vermont schools have lead in their water supply. How concerned should you be? (Jan 27, 2020)
9. [CEP Magazine](#) (AIChE's flagship journal; profile feature): Pursuing Science for the Public Good (December 2016 issue)
10. [Chicago Tribune](#) (front page): Flint researchers find alarming levels of lead in Cicero, Berwyn tap water, suggesting thousands of older homes at risk (Aug 10, 2018)
11. [Christian Science Monitor](#): How to fix Flint's lead pipe problem (Jan 23, 2016)
12. [Chronicle of Higher Education](#): The Accidental Ethicist (Oct 2, 2016)
13. [Engineer's Forum](#): PUZZLING PIPES: Civil engineers plumb corrosion mystery (September 2015 issue)
14. [Five Thirty-Eight](#): What Went Wrong In Flint (Jan 26, 2016)
15. [Grist](#): Shift Happens, one PB&J at a time (Dec 3, 2016)
16. [Healthline](#): How toxic is the water in Flint (Jan 25, 2016)
17. [Jacobin](#): Capitalism Is Ruining Science (July 2018 issue)
18. [Michigan Radio](#): Team testing Flint water for lead sample by sample (Sep 6, 2015)
19. [Michigan Radio](#): New study questions some of the citizen science projects during Flint's water crisis (Mar 8, 2019)
20. [My Suburban Life](#): Testing by local organization, Virginia Tech finds high lead levels in Berwyn, Cicero water (Aug 14, 2018)
21. [Notre Dame Science](#): Virginia Tech researchers explain the Flint water crisis (Dec 8, 2016)
22. [National Science Foundation](#): Flint water crisis: For young engineers, a lesson on the importance of listening (Mar 23, 2016)
23. [Pittsburgh Tribune-Review](#).
24. [SciDev](#): India, MENA region face severe water crisis (Aug 15, 2019)
25. [Scientific American](#): Water Wand (Jun 2020)
26. [STAT News](#): Lessons from a Flint water crisis researcher about building trust in science during the pandemic (Nov 18, 2021)
27. [St. Louis Post-Dispatch](#): Districts move to test water for lead after elevated levels found in some St. Louis schools (Aug 25, 2016)
28. [The American Prospect](#): Beyond Flint: How Local Governments Ignore Federal Water Standards (Feb 24, 2016)
29. [The Dallas Morning News](#): Disabled Texans in three state homes have been drinking water with Flint-level amounts of lead (May 13, 2016)
30. [Flint Journal](#): Meet the key figures in NOVA's 'Poisoned Water' feature on Flint (May 2017)
31. [Flint Journal](#): Researchers say sewage data holds clues to Flint water crisis (May 30, 2019)
32. [The Guardian](#): A hidden scandal: America's school students exposed to water tainted by toxic lead (Mar 6, 2019)
33. [The New York Times](#) (centerspread): As Flint Fought to Be Heard, Virginia Tech Team Sounded Alarm (Feb 6, 2016)
34. [The Roanoke Times](#): Virginia Tech researchers fought for Flint in water crisis (Jan 23, 2016)
35. [Virginia Tech Magazine](#): Fighting for Flint: A Virginia Tech team exposes lead poisoning (Spring 2016 issue)
36. [Virginia Tech Magazine](#): Tapping the Ripple Effect (Fall 2018 issue)
37. [WIRED](#): Ripple Effect: The crisis in Flint isn't over. It's everywhere. (Jun 2016 issue)
38. [WIRED](#): The Flint Water Crisis Is Bigger Than Elon Musk (Jul 12, 2018)

Media Coverage: Television

1. [FOX17](#): Virginia Tech scientist talks 'Flint water crisis' with WMU students, staff (Feb 10, 2016)
2. [Sky News UK](#): Dirty Water Supplies 'Poisoning Public Trust' (May 30, 2016)
3. [WDBJ7](#): Sunday morning TV panel (Jan 2016)
4. [TRT World](#): Has Flint's water crisis been solved? (Apr 19, 2018)
5. [WSLS10](#): Virginia Tech researchers announce Flint water is safe (Sep 17, 2017)

Media Coverage: Podcasts and Radio

1. Mother Jones' [Inquiring Minds](#) (2017)
2. [Science Soapbox](#) (2016)
3. [The Nature of Cities](#) (2016)
4. [The Story Collider](#) (2017)
5. [International Water Association](#) (2021)
6. [International Water Association](#) (2020)
7. [Vanguard STEM](#). (2016)
8. BBC World Service (2016)
9. [Iowa Public Radio](#) (NPR): Iowa's Drinking Water: Could Flint Happen Here? (June 2016)
10. [KCRW's To The Point](#): Lead in America's Water Systems (March 2016)
11. [Minnesota Public Radio](#) (NPR): This American Moment: Restoring the public's faith in science and expertise (November 2018)
12. [WMUK](#) (NPR): WSW: Flint's Lesson About Science And Ethics (February 2016)
13. [WUFT](#) (NPR): What Led The Alachua County School District To Install Water Filters To Prevent Lead Contamination (October 2018)

RESEARCH CONTRACTS AND GRANTS (\$5,000 and over)

1. ACX (\$25,000). *Citizen science sampling for waterborne opportunistic pathogens including Legionella* (2022-on). Lead Investigator and Primary Author.
2. Spring Point Partners, LLC (\$3,000,000). *Exposing Infrastructure Inequality in America: Leveraging Success and Building Capacity* (2017-present). Co-Investigator.
3. Water Research Foundation (\$60,000). 4658: *Corrosion of Nonleaded Pump Impeller Alloys in Chlorinated Potable Water* (2016-18). Lead Investigator and Primary Author.
4. Chase Brass (\$16,200). Technical Assistance Program: Erosion Corrosion in Nonleaded Alloys (2016-17). Lead Investigator and Primary Author.
5. Union of Concerned Scientists and EPA College/Underserved Community Partnership Program. (\$10,000). Lead in Water Pilot Project for public schools near Georgia College, Tuskegee University and UNC Wilmington (2016-17). Primary Coordinator.
6. Flint Water Study Crowdfunding (\$100,000+). GoFundMe to recover discretionary funds directed to Flint (2016). Co-written/co-led with Dr. Marc Edwards.
7. [Development/Service] Engineers Without Borders (\$26,450). Guatemala Boarding School Sanitation Project. Primary Author. Funds from Boeing, Pratt & Whitney and Bechtel (2013-15).

PROFESSIONAL SERVICE

Referee for peer-reviewed journals and conference proceedings

<i>American Journal of Public Health</i>	<i>ES: Water Research & Technology</i>
<i>Citizen Science: Theory and Practice</i>	<i>IWA World Water Congress 2022, Denmark</i>
<i>CORROSION</i>	<i>International J. of Hygiene and Env. Health</i>
<i>Corrosion Reviews</i>	<i>Forensic Sciences Research</i>
<i>Environmental Engineering Science</i>	<i>Journal of Water and Health</i>
<i>Environmental Justice</i>	<i>Proceedings of the National Academy of Sciences</i>
<i>Environmental Science and Technology</i>	<i>Water Research</i>
<i>Environmental Science and Technology Letters</i>	<i>WIRES: Water</i>
<i>ES&T Water</i>	<i>Utilities Policy</i>

Federal Advisory Boards

US Environmental Protection Agency, Board of Scientific Counsellors - *Social and Community Science* federal advisory committee, 2022-onward

Journal Editorial Boards

Invited to join: *Frontiers in Environmental Health* in 2022 (declined) and *International Journal of Environmental Research and Public Health* in 2020 (declined)

Research Proposal/Award/Federal Recommendations Reviewer

CDC National Institute for Occupational Safety and Health – Lead Pipe Replacement Advisory, 2022
 University of Wisconsin Water Resources Institute – Research Proposals, 2022
 National Science Foundation ENG/CBET Program – Research Proposals, 2021
 NC Water Resource Research Institute – Research Proposals, 2020
 AAAS Kavli Science Journalism Awards – Science Reporting: In Depth, 2020
 AAAS IF/THEN Ambassadors (100 women in STEM as role models for middle school girls), 2019
 Graduate Women in Science National Fellowship Program, 2019
 VT Graduate Research Development Program – student research proposals, 2013

Expert Judge

Virginia State Science and Engineering Fair, 2020
 Paul E. Torgersen Graduate Research Excellence Competition, Virginia Tech, 2019
 U.S. Stockholm Junior Water Prize, Blue Ridge Highlands Science Fair, Radford VA, 2018
 Young Professionals Poster Competition, AWWA Annual Conference, Denver CO, 2017

Conferences and Workshops

- Conference Moderator (2x), UNC Water and Health Conference, Oct 24-28 2022, Chapel Hill NC
 Organizer and Moderator, “The Science and Politics of Journal Retractions” webinar, HxEES, May 25, 2022, Virtual
- Organizer and Moderator, “Fighting the coronavirus pandemic: Evidence-based approaches from Environmental Engineers” webinar, HxEES, Jul 29, 2020, Virtual
- Conference Session Chair, “Special Case Studies” at AWWA India Annual Conference and Exposition, Dec 13-14, 2019, Mumbai, India
- Conference Workshop Chair, “Water Quality and Citizen Science 101” teaching workshop at UNC Water and Health Conference 2019, Oct 11 2019, Chapel Hill NC
- Conference Moderator, “Disinfection Byproduct Health Impacts and Compliance Strategies” at AWWA WQTC 2019 in Dallas TX (Nov 3-7, 2019)
- Co-organizer, US-Jordan “Transformational Ideas to Improve Development and Policy Response to Forced Displacement” conference on the Syrian refugee crisis, Jun 4-7 2019, Blacksburg VA

ORGANIZATIONAL MEMBERSHIPS

Current: Association of Environmental Engineering and Science Professors (AEESP), Heterodox Academy (HxA), International Water Association (IWA), Society of Toxicology (SOT). Previously active: American Society of Civil Engineers (ASCE), American Water Works Association (AWWA), Engineers Without Borders USA (EWB-USA), National Association of Corrosion Engineers (NACE), Society of International Development–US (SID-US), Water Environment Federation (WEF).

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