Amanda Hohner

Curriculum Vitae

Assistant Professor

Civil Engineering, Montana State University

email: amanda.hohner@montana.edu

My area of expertise is focused on the characterization of source water quality and physicochemical drinking water treatment processes. Within this area, I evaluate the effects of extreme events and climatic disturbances on watersheds and drinking water system resiliency. My work aims to inform decision making, source water protection strategies, and climate preparedness among municipal water providers.

EDUCATION AND TRAINING

PhD, Environmental Engineering University of Colorado at Boulder	**December 2016**
Master of Science, Civil Engineering University of Colorado at Boulder	**December 2011**
Bachelor of Science, Civil Engineering Washington State University	**December 2009**
Certified Engineer in Training	**April 2009**

PROFESSIONAL APPOINTMENTS

Assistant Professor	Civil Engineering Montana State University, 2022-Present
Assistant Professor	Civil and Environmental Engineering Washington State University, 2017-2022
Instructor	Civil and Environmental Engineering Washington State University, 2016-2017
Graduate Research Assistant	Civil, Environmental and Architectural Engineering, University of Colorado-Boulder, 2010-2011; 2013-2016
NSF Graduate K-12 Teaching Fellow	University of Colorado-Boulder, College of Engineering and Applied Science, 2013-2014
Civil Engineer	Black & Veatch, Portland, Oregon, 2012-2013
Professional Research Assistant	Civil, Environmental and Architectural Engineering, University of Colorado-Boulder**,** 2012
Undergraduate Research Assistant	Civil and Environmental Engineering Washington State University, 2008-2009

FUNDED RESEARCH

1. ***Water security: Evaluation of drinking water system challenges and cost implications to assess preparedness for wildfire in the Western US***
   Funding Agency: United States Forest Service (USFS)
   Principal Investigator: Amanda Hohner (MSU)
   Co-Investigators: Steve Wondzell (USFS, PNW Research Station), Kyle Shimabuku (Gonzaga University), Eric Ross (Gonzaga University)
   Total Award: $850,000
   Award Duration: 6/1/2023 – 5/31/2027

2. ***Monitoring and managing microbial water quality for food safety: Characterization of wildfire ash runoff contamination potential of agricultural waters***
   Funding Agency: United State Department of Agriculture
   Principal Investigator: Amanda Hohner
   Total Award: $44,708
   Award Duration: 6/1/2023 – 4/30/2026

3. ***Collaborative Research: Evaluating the Unique Composition, Environmental Stability, and Export of Dissolved Pyrogenic Organic Matter in Wildfire-Impacted Watersheds***
   Funding Agency: National Science Foundation (NSF), Environmental Engineering
   Principal Investigators: Amanda Hohner (MSU) and Garrett McKay (Texas A&M University)
   Co-Investigator: Peyton Smith (TAMU)
   Total Award: $225,368 (MSU)
   Award Duration: 1/1/2023- 12/31/2025

4. ***Ensuring Water Security with Increasing Wildfire Threats in the Western US: Drinking Water Treatment and Ecosystem Services***
   Funding Agency: United States Forest Service (USFS)
   Principal Investigator: Amanda Hohner (MSU)
   Co-Investigator: Sonja Kolstoe (USFS, PNW Research Station)
   Total Award: $725,000 (MSU)
   Award Duration: 5/16/2022 – 9/30/2025

5. ***Sustainable Transformation of Environmental engineering Education for Modern society (STREEM)***
   Funding Agency: National Science Foundation: Revolutionizing Engineering Departments
   Principal Investigator: Craig Woolard
   Co-Investigators: Ellen Lauchnor, Adrienne Phillips, Kathryn Plymesser, Catherine Kirkland
   Senior Personnel: Amanda Hohner
   Total Award: $995,828
   Award Duration: 10/2020 – 11/2025

6. ***Aiding water managers through a predictive ecohydrological modeling tool for assessing disturbance-induced runoff and water quality challenges.***
   Funding Agency: National Aeronautics and Space Administration (NASA) ROSES
   Principal Investigator: Julie Padowski (WSU)
   Co-Investigators: Jennifer Adam (WSU), Kevin Bladon (OSU), Erin Brooks (UI), Mariana Dobre (UI), Erin Hanan (UNR), Amanda Hohner (MSU), Mingliang Liu (WSU), Peter Robichaud (USFS)
   Total Award: $1,048,975
   Award Duration: 4/15/2022 – 4/14/2025

7. ***Evaluation of Emerging Plastics Recycling Technologies and Management Strategies***
   Funding Agency: Washington State Department of Ecology Waste to Fuels Technology
   Principal Investigator: Manuel Garcia-Perez
   Co-Principal Investigators: Amanda Hohner, Embrey Bronstad, Georgine Yorgey
   Total Award: $31,953
   Award Duration: 2022-2023

8. ***Implementing SCAMQ method 25.3 to Measure VOC Emissions from Composting***
   Funding Agency: Washington State Department of Ecology Waste to Fuels Technology
   Principal Investigator: Tom Jobson
   Co-Principal Investigator: Amanda Hohner
   Total Award: $293,577
   Award Duration: 2022-2023

9. ***Post-fire water quality effects of biopolymer and polymer stabilization of burnt Washington Hillslopes***
   Funding Agency: USGS National Institute for Water Resources State of Washington Water Research Center
   Principal Investigator: Idil Akin
   Co-Principal Investigator: Amanda Hohner
   Total Award: $29,732
   Award Duration: 2021-2022

10. ***Living with Fire- creating a network for interdisciplinary collaboration to advance wildfire science and engineering excellence***
    Funding Agency: Office of Research, Washington State University
    Principal Investigator: Julie Padowski
    Co-Investigators: Jennifer Adam, Amanda Hohner, Idil Akin, Deepti Singh, Arjan Meddens (School of the Environment), Sonia Hall (CSANR), Andrew Perleberg (WSU Extension- Forestry)
    Total Award: $10,000
    Award Duration 2020-2021

11. ***Demonstration of an Advanced Distillation and Nutrient Separation Processor for Dairy Wastewater***
    Funding Agency: USDA Natural Resources Conservation Service (NRCS)
    Principal Investigator: Jim Jensen (WSU Energy Program)

Co- Investigators: Georgine Yorgey (WSU Extension), Amanda Hohner
Total Award: $406,072
Award Duration: 2018-2021

12. ***Assessing the need for fire-related decision-support tools for water management in the Pacific Northwest, USA***
Funding Agency: National Aeronautics and Space Administration (NASA) ROSES
Principal Investigator: Julie Padowski
Co-Investigators: Amanda Hohner, Sonia Hall (WSU Extension)
Total Award: $99,994
Award Duration: 2019-2020

13. ***Washington wildfires disrupt water quality: Are drinking water systems resilient to climate change?***
Funding Agency: USGS National Institute for Water Resources State of Washington Water Research Center
Principal Investigator: Amanda Hohner
Co-Principal Investigator: Jan Boll
Total Award: $27,500
Award Duration: 2018-2019

14. ***Evaluation of On-site and In-situ Treatment Alternatives for Contaminated Soils***
Funding Agency: Illinois Center for Transportation
Principal Investigator: Amanda Hohner
Co-Principal Investigators: Richard Watts, Xianming Shi, Idil Akin, Indranil Chowdhury
Total Award: $374,778 (not including $125,222 cost-share)
Award Duration: 2018-2021

PEER-REVIEWED PUBLICATIONS *(#indicates student advisee)*

1. Promi, S.#, Gardner, C., **Hohner, A.K**. *Biodegradation Potential of Low and Moderate Temperature Dissolved Pyrogenic Organic Matter Compared to Unheated Dissolved Organic Matter.* Submitted to Environmental Science: Processes and Impacts. Under Review.

2. Rodela, M.H.#, Chowdhury, I., **Hohner, A.K**. *Emerging Investigator Series: Physicochemical Properties of Wildfire Ash and Implications for Particle Stability in Surface Waters.* Environmental Science: Processes and Impacts. **2022**. 0.1039/D2EM00216G

3. Khan, A.L., Sokol, E.R., McKnight, D.M., Saunders, J.F., **Hohner, A.K**., Summers, R.S. *Phytoplankton Drivers of Dissolved Organic Material Production in Colorado Reservoirs and the Formation of Disinfection By-Products.* **2021**. Frontiers in Environmental Science. 10.3389/fenvs.2021.673627

4. Robinne, F.N., Hallema, D., Bladon, K., Flannigan, M., Boisramé, G. Bréthaut, C. Doerr, S. Di Baldassarre, G. Gallagher, L., **Hohner, A**., Khan, S., Kinoshita, A., Mordecai, R.,

Nunes, J., Nyman, P., Santín, C., Sheridan, G., Stoof, C., Thompson, M., Waddington, J., Wei, Y. **2021**. *Scientists' warning on extreme wildfire risks to water supply.* Hydrological Processes. https://doi.org/10.1002/hyp.14086

5. McKay, G., **Hohner, A.K**., Rosario-Ortiz, F.L. **2020**. *Use of optical properties for evaluating the presence of pyrogenic organic matter in thermally altered soil leachates.* Environmental Science: Processes & Impacts, 22, 981-992. doi: 10.1039/c9em00413k

6. Raseman, W., Kasprzyk, J.R., Summers, R.S., **Hohner, A.K.**, Rosario-Ortiz, F.L, **2020**. *Multi-objective optimization of water treatment operations for disinfection byproduct control.* Environmental Science: Water Research & Technology, Environmental Science: Water Research & Technology, 6, 702-714. doi: 1039/C9EW00850K.

7. **Hohner, A.K**., Summers, R.S., Rosario-Ortiz, F.L., **2019**. *Laboratory simulation of postfire effects on conventional drinking water treatment and disinfection byproduct formation.* AWWA Water Science, e1155. https://doi.org/10.1002/aws2.1155

8. **Hohner, A.K**., Rhoades, C.C., Wilkerson, P., Rosario-Ortiz., F.L., **2019**. *Wildfires Threaten Drinking Water Quality*. Accounts of Chemical Research. 52 (5), 1234-1244.

9. Watts, R.J., Ahmad, M., **Hohner, A.K**., Teel, A.L., **2018**. *Persulfate Activation by Glucose for In Situ Chemical Oxidation.* Water Research, 133, 247-254. doi: 10.1016/j.watres.2018.01.050

10. Cawley, K., **Hohner, A**., McKee, G., Borch, T., Omur-Ozbek, P., Oropeza, J., Rosario-Ortiz, F.L., **2018**. *Characterization and spatial distribution of particulate and soluble carbon and nitrogen from wildfire impacted sediments*. Journal of Soils and Sediments, 1-13. doi: 10.1007/s11368-016-1604-1

11. **Hohner, A**., Gilmore, P.L., Townsend, E., Summers, R.S., Rosario-Ortiz, F.L., **2017**. *Water treatment process evaluation of wildfire-affected sediment leachates.* Environmental Science: Water Research & Technology, 3, 352. doi: 10.1039/c6ew00247a

12. Cawley, K., **Hohner, A**., Podgorski, D., Cooper, W., Korak, J., Rosario-Ortiz, F.L., **2017**. *Molecular and spectroscopic characterization of water extractable organic matter from thermally altered soils reveal insight into disinfection byproduct precursors.* Environmental Science & Technology, *51* (2), 771–779. doi: 10.1021/acs.est.6b05126

13. **Hohner, A**., Cawley, K., Oropeza, J., Summers, R.S., Rosario-Ortiz, F.L**., 2016**. *Drinking water treatment response following a Colorado wildfire*. Water Research, 105, 187–198.

14. Saunders, J.F., **Hohner, A.K.**, Summers, R.S., Rosario-Ortiz, F.L., **2015**. *Regulating Chlorophyll a to Control DBP Precursors in Water Supply Reservoirs*. Journal American Water Works Association, 107, E603–E612. doi: 10.5942/jawwa.2015.107.0153.

15. Writer, J.H., **Hohner, A**., Oropeza, J., Schmidt, A., Cawley, K., Rosario-Ortiz, F.L., **2014**. *Water Treatment Implications after the High Park Wildfire, Colorado.* Journal American Water Works Association, 106, E189–E199. doi: 10.5942/jawwa.2014.106.0055

PEER-REVIEWED CONFERENCE PAPERS AND RESEARCH REPORTS

(#indicates student advisee)

1. Gallagher, S., Phillips, A., Lauchnor, E., **Hohner, A.K**, Stein, O.R., Woolard, C.R., Kirkland, C.M., & Plymesser, K. *Implementing Integrated Project-Based Learning Outcomes in a 21st Century Environmental Engineering Curriculum*. Presentation and paper in proceedings of the American Society for Engineering Education (ASEE) Annual Conference, Baltimore, MD, **June 2023** https://peer.asee.org/43547

2. Ahmed, A., **Hohner, A.K**., Robichaud, P.R., Akin, I.D. *Effects of post-wildfire erosion and wildfire ash on water quality*. Proceedings of the 9th International Congress on Environmental Geotechnics. Chania, Greece. **June 2023.**

3. Ahmed, A., **Hohner, A.K**., Robichaud, P.R., Akin, I.D. *Geoenvironmental impacts of post-wildfire hillslope stabilization with xanthan gum and polyacrylamide.* **2022**. GeoCongress Conference, Charlotte, NC.

4. Akinleye, T., **Hohner, A.K**., Shi, X., Akin, I.D. *Influence of Electrochemical Remediation on the Hydraulic and Mechanical Behavior of Metals-Contaminated Clayey Soil.* **2022.** GeoCongress Conference, Charlotte, NC.

5. Akinleye, T., Akin, I.D., **Hohner, A.K**., Chowdhury, I., Watts, R.J., Shi, X., Dutmer, B., Mueller, J., Moody, W. **2021**. Illinois Center for Transportation Report FHWA-ICT-21-014. *Evaluation of electrochemical treatment for removal of arsenic and manganese from field soil*. Illinois Center for Transportation.

6. Pelletier, A.#, **Hohner, A.K**., Akin, I.D., Chowdhury, I., Watts, R.J., Shi, X., Dutmer, B., Mueller, J., Moody, W. **2021**. Illinois Center for Transportation Report FHWA-ICT-21-013. *Bench-scale electrochemical treatment of co-contaminated clayey soil*. Illinois Center for Transportation.

7. **Hohner, A.K.,** Pelletier, A#., Akin, I., Chowdhury, I., Watts, R.J., Shi, X., Dutmer, B., Mueller, J. **2020**. Illinois Center for Transportation Report FHWA-ICT-20-010. *Summary of Illinois Regulations and Review of Treatment Alternatives for Contaminated Soils in Right-of-Ways.* Illinois Center for Transportation.

8. **Hohner, A.K**., Webster, J., Cawley, K., Rosario-Ortiz, F., and Becker, W., **2018.** Water Research Foundation Report (WRF#4590). *Wildfire Impacts on Drinking Water Treatment Process Performance: Development of Evaluation Protocols and Management Practices.* American Water Works Association Water Research Foundation.

9. Seidel, C., Ghosh, A., Tang, G., Rosario-Ortiz, F.L, **Hohner, A.K.**, Summers, R.S., McKnight, D.M., Rodgers, M. **2013**. Water Research Foundation Report (WRF#4302). *Effects of Lake Erie Water Quality Changes on Disinfection Byproduct Formation.* American Water Works Association Water Research Foundation.

10. **Hohner, A.**, Khan, A., McKnight, D.M., Summers, R.S., Rosario-Ortiz, F.L. *The Role of Nutrient Levels and Algae on DBP Formation in Colorado Watersheds: Implications for Source Water Quality Management.* American Water Works Association- Water Quality Technology Conference Proceedings, 2011.

TRADE JOURNAL ARTICLES

1. Becker, W.C., **Hohner, A.**, Rosario-Ortiz, F., and DeWolfe, J. 2018. *Preparing for Wildfires and Extreme Weather: Plant Design and Operation Recommendations.* Journal American Water Works Association. https://doi.org/10.1002/awwa.1113

2. **Hohner, A.** and Rosario-Ortiz, F.L. *Wildfires and Water Quality*. American Water Works Association. SOURCE Magazine. Summer 2017. http://www.apogeepublications.com/emags/source_summer2017/page_31.html

3. **Hohner, A.**, Cawley, K., Rosario-Ortiz, F.L. Colorado Department of Public Health and Environment Report: *Impact of the High Park Wildfire on Water Quality*. February 2014. https://www.colorado.gov/pacific/cdphe/wq-publications

4. **Hohner, A.**, Ghosh, A., Rosario-Ortiz, F.L., 2013. *Formation of Nitrogenous Disinfection Byproducts from Algal Organic Matter.* Journal American Water Works Association, 105: 47-50. doi: 10.5942/jawwa.2013.105.0007.

INVITED TALKS

1. Hohner, A.K. *Optimizing responsiveness of conventional water treatment processes to wildfire*. Water Research Foundation and forWater Workshop: Wildfire Threats to Forested Drinking Water Supplies, Recent Advances & Opportunities in Understanding & Management. Seattle, WA. October 2023. *Invited.*

2. Hohner, A.K. Wildfire Implications for Drinking Water Systems. Environmental Protection Agency Small Drinking Water Systems Webinar. July 2023. *Invited.*

3. Hohner, A.K. *Wildfire Implications for Drinking Water Systems*. Interagency Conference on Research in the Watersheds (ICRW8). Corvallis, OR. June 2023. *Invited.*

4. Hohner, A.K. Wildfire Disturbances to Drinking Water Systems. Oregon State University, Department of Chemical, Biological, and Environmental Engineering Seminar. January 2023. *Invited.*

5. Hohner, A.K. *Characterization of Wildfire Ash Water Contamination Potential*. Joint Aquatic Science Meeting. May 2022. Grand Rapids, MI and Virtual. *Invited.*

6. Hohner, A.K. *Analysis of Wildfire Effects on Water Quality and Impacts to Drinking Water Treatment.* November 2021. American Water Works Association Water Quality & Technology Conference. Tacoma, WA. *Invited*.

7. Hohner, A.K. *Wildfire Effects on Source Water Quality and Treatment.* June 2021. Wildfires and Water Treatment Workshop. American Water Works Association Pacific Northwest Section. Remote Presentation*. Invited.*

8. Hohner, A.K. *Post-fire Impacts to Drinking Water Quality*. April. 2021. SoCal Society of Environmental Toxicology and Chemistry, Annual Meeting. Remote Presentation. *Invited.*

9. Hohner, A.K. *Wildfire Disturbances to Source Water Quality and Drinking Water Treatment*. March 2021. Cascadia Fire Working Group. Remote Presentation. *Invited.*

10. Hohner, A.K. *Wildfire Effects on Source Water Quality & Treatment*. February 2021. American Water Works Association Pacific Northwest Section, Young Professionals Webinar Series. Remote Presentation. *Invited*.

11. Hohner, A.K. *Wildfire Impacts on Source Water Quality and Treatment*. December 2020. EPA Region 8 and Region 10 Area-Wide Optimization Program (AWOP) Workshop. Association of State Drinking Water Administrators. Remote Presentation. *Invited.*

12. Hohner, A.K. *Wildfire Disturbances to Source Water Quality and Treatment*. October 2020. Washington State University Center for Environmental Research, Education and Outreach. Remote Presentation. *Invited.*

13. Hohner, A.K. *Wildfire Disturbances to Source Water Quality and Treatment*. November 2019. American Water Works Association Water Quality and Technology Conference. Dallas, TX. *Invited.*

14. Hohner, A.K. *Influences of Black Carbon and Nitrogen on Aquatic Hydrobiogeochemistry*. September 2019. SFA Watershed Community Workshop. Pacific Northwest National Laboratory. Richland, WA. *Invited.*

15. Hohner, A.K. *Wildfire Impacts on Water Quality and Treatment.* March 2019. California-Nevada Section, American Water Works Association Conference. Sacramento, CA. *Invited.*

16. Hohner, A.K. *Wildfire Impacts on Water Quality and Treatment.* February 2019. Rogue River Basin Source Water Protection Workshop Maintaining Clean Water in the Presence of Wildfire Threats: Partnering to Protect and Restore Watershed Health for Communities and Fish. Medford, OR. *Invited.*

17. Hohner, A.K. *Wildfire Impacts on Water Quality and Treatment.* November 2018. San Francisco Public Utilities Commission Annual Water Quality and Technology Workshop. Foster City, CA. *Invited.*

18. Hohner, A.K. *Wildfire Disturbances to Source Water Quality and Drinking Water Treatment.* October 2018. Washington State University Center for Environmental Research Education and Outreach (CEREO) Seminar. Pullman, WA. *Invited.*

19. Hohner, A.K. *Post-fire Impacts to Drinking Water Treatment.* October 2018. California State Water Resources Control Board: Post-fire Impacts on Drinking Water Utilities Webinar. *Invited.*

20. Hohner, A.K. *Wildfire Disturbances to Water Quality: Implications for Drinking Water Treatment*. August 2018. American Water Works Association: Wildfire Impacts on Water Quality and Treatment Webinar. *Invited.*

21. Hohner, A.K. *Drinking Water Treatment Implications Following Wildfire*. June 2018. Wildfires, Water Quality Impacts, & Forestry Management. Water Research Foundation Workshop. Boulder, CO. *Invited.*

PRESENTATIONS *([#]indicates student advisee, * indicates poster presentation)*

1. Hohner, A.K., Shimabuku, K., Jin, X., Kolstoe, S., Wampler, K.A., Bladon, K.D. *Drinking water system vulnerability and resiliency to wildfire in the Pacific Northwest.* November 2023. American Water Works Association Water Quality and Technology Conference. Dallas, TX.

2. Rodela, M.[#], Chowdhury, I., and Hohner, A.K. *Wildfire Ash Impacts on Source Water Quality, Particle Stability, and Treatability.* November 2023. American Water Works Association Water Quality and Technology Conference. Dallas, TX.

3. Rodela, M.[#], Chowdhury, I., and Hohner, A.K. *Stability of Wildfire Ash Particles and Effects on Water Quality*. June 2023. Association of Environmental Engineering and Science Professors Conference. Boston, MA.

4. Promi, S.[#], Hohner, A.K., and Gardner, C.M. *Comparative Study on the Biodegradation Potential of Unburned Dissolved Organic Matter and Low-temperature Dissolved Pyrogenic Organic Matter*. October 2022. American Water Works Association Water Smart Innovations Conference. Las Vegas, NV.*

5. Promi, S.[#] and Hohner, A.K. *Biodegradation of Low-Temperature Dissolved Pyrogenic Organic Matter.* March 2022. Washington State University Academic Showcase. Pullman, WA.*

6. Padowski, J., Hohner, A.K. and Hall, S. *Identifying the need for fire-water decision support tools for water managers in the Pacific Northwest, USA*. December 2020. American Geophysical Union Fall Meeting. Virtual conference.*

7. Padowski, J. and Hohner, A.K. *Identifying critical data and decision-support tools for municipal water quantity and quality planning to account for the impacts of wildfire in the Pacific Northwest, USA.* December 2019. American Geophysical Union Fall Meeting. San Francisco, CA.*

8. McKay, G., Hohner, A.K., and Rosario-Ortiz, F.L. *Use of Optical Properties for Evaluating the Presence of Pyrogenic Organic Matter in Thermally Altered Soil Leachates.* November 2019. American Water Works Association Water Quality and Technology Conference. Dallas, TX.

9. Nicholson, E. and Hohner, A.K. *Wildfires and Drinking Water Treatment*. September 2019. Southern Oregon Water and Wastewater Short School. Medford, OR.

10. Kittisack-Crain, E.[#] and Hohner, A.K. *Optimizing Coagulation Treatment to Adapt to Variable Water Quality Following Wildfire*. June 2019. American Water Works Association Annual Conference and Exposition. Denver, CO.

11. Leibnitz, N.[#], Kittisack, E[#]., Hohner, A.K. *Characterizing Post-Wildfire Mulch Leachates: Implications for Source Water Quality*. August 2018. Washington State University Undergraduate Research Symposium. Pullman, WA.*

12. Hohner, A.K. *Wildfire Effects on Drinking Water Treatability: Heat-induced Changes to Organic Matter Character.* June 2018. Gordon Research Conference, Environmental Science: Water. Holderness School- Plymouth, NH.*

13. Hohner, A.K. and Rosario-Ortiz, F.L. *Linking Post-fire Watershed Responses to Drinking Water Quality Effects.* May 2018. The Fire Continuum Conference. Missoula, MT.

14. Raseman, W.J., Hohner, A.K., Kasprzyk, J., Rosario-Ortiz, F.L., Summers, R.S. *Development of a Water Treatment Decision Support System for Utilities Facing Wildfire Risks.* March 2018. American Water Works Association Sustainable Water Management Conference. Seattle, WA.

15. Hohner, A. and Rosario-Ortiz, F.L. *Post-fire effects on treatment process performance.* November 2017. American Water Works Association Water Quality and Technology Conference. Portland, OR.

16. Raseman, W.J.; Kasprzyk, J.; Rosario-Ortiz, F.L.; Summers, R.S.; Hohner, A.K. *Multiobjective optimization of water treatment operations for seasonally varying source water quality and extreme events*. November 2017. American Water Works Association Water Quality and Technology Conference. Portland, OR.*

17. Raseman, W.J.; Kasprzyk, J.; Rosario-Ortiz, F.L.; Summers, R.S.; Hohner, A.K. *Multiobjective Optimization to Aid in Long-Term Planning for Potable Water Systems Vulnerable to Wildfire Impacts.* June 2017. Association of Environmental Engineering and Science Professors Research and Education Conference. Ann Arbor, MI.*

18. Hohner, A. and Rosario-Ortiz, F.L. *Laboratory simulation of wildfire heating: Effects on DOM and treatment.* April 2017. American Chemical Society- National Meeting. San Francisco, CA.

19. Vernon, P.; Raseman, W.J.; Kasprzyk, J.; Rosario-Ortiz, F.L.; Summers, R.S.; Hohner, A.K. *Multi-Objective Optimization Using Water Treatment Plant Simulation Model for*

Wildfire Conditions. April 2017. University of Colorado Hydrologic Sciences Symposium. Boulder, CO.*

20. Hohner, A., Webster, J., Cawley, K., Summers, R.S., Rosario-Ortiz, F.L. *Laboratory simulation of wildfire effects on DOM character, treatability, and nitrogenous DBP formation.* November 2016. American Water Works Association Water Quality and Technology Conference. Indianapolis, IN.

21. Hohner, A., Gilmore, P.L., Townsend, E., Summers, R.S., Rosario-Ortiz, F.L. *The assessment of a lab-based approach to evaluate wildfire impacts on treatment processes.* November 2015. American Water Works Association Water Quality Technology Conference. Salt Lake City, UT.

22. Cawley, K.; Hohner, A.; Summers, R.S.; Rosario-Ortiz, F.L. *Assessing the character and reactivity of water soluble organic matter after a wildfire.* September 2015. International Water Association Specialist Conference on Natural Organic Matter. Malmo, Sweden.

23. Hohner, A.; Gilmore, P.L.; Townsend, E.; Summers, R.S.; Rosario-Ortiz, F.L. *Nitrogenous disinfection byproduct precursor levels in wildfire-impacted waters and their fate during pre-oxidation and coagulation treatment.* August 2015. Gordon Research Seminar- Disinfection Byproducts. Mt. Holyoke College, South Hadley, MA.

24. Hohner, A.; Gilmore, P.L.; Townsend, E.; Summers, R.S.; Rosario-Ortiz, F.L. *Nitrogenous disinfection byproduct precursor levels in wildfire-impacted waters and their fate during pre-oxidation and coagulation treatment.* August 2015. Gordon Research Conference- Disinfection Byproducts. Mt. Holyoke College, South Hadley, MA.*

25. Hohner, A.; Cawley, K.; Oropeza, J.; Summers, R.S.; Rosario-Ortiz, F.L. *Assessing the impacts of wildfire on source water quality and treatment.* June 2015. American Water Works Association Annual Conference and Exposition. Anaheim, CA.

26. Cawley, K.; Hohner, A.; Omur-Ozbek, P.; Summers, R.S.; Rosario-Ortiz, F.L. *Characterization of water soluble organic matter (WSOM) from wildfire impacted stream bank material and implications for the drinking water treatment process.* March 2015. American Chemical Society- National Meeting. Denver, CO.

27. Hohner, A.; Cawley, K.; Omur-Ozbek, P.; Summers, R.S.; Rosario-Ortiz, F.L. *Evaluating the treatability and reactivity of wildfire-impacted dissolved organic matter using leachates from burned sediments.* March 2015. American Chemical Society- National Meeting. Denver, CO. *

28. Hohner, A.; Cawley, K.; Omur-Ozbek, P.; Summers, R.S.; Rosario-Ortiz, F.L. *Assessing wildfire-impacted source water quality and treatability through a lab-based leaching study.* November 2014. American Water Works Association Water Quality Technology Conference. New Orleans, LA.

29. Cawley, K.; Hohner, A.; Rosario-Ortiz, F.L. *Concentration and character of particulate and dissolved organic matter mobilized following a wildfire*. August 2014. American Chemical Society- National Meeting. San Francisco, CA.

30. Hohner, A.; Saunders, J.; Summers, R.S.; Rosario-Ortiz, F.L. *The presence of brominated haloacetonitrile precursors in nutrient and wastewater influenced Colorado source waters.* June 2014. American Water Works Association Annual Conference and Exposition. Boston, MA.

31. Cawley, K.; Hohner, A.; Rosario-Ortiz, F.L.; *Concentration and character of particulate and dissolved organic matter mobilized following a wildfire*. May 2014. Joint Aquatic Sciences Meeting. Portland, OR.

32. Hohner, A.; Cawley, K.; Omur-Ozbek, P.; Rosario-Ortiz, F. *Assessing wildfire impacted source water quality and treatability through monitoring and a lab-based leaching study.* April 2014. University of Colorado Hydrologic Sciences Symposium. Boulder, CO.*

33. Hohner, A.; Cawley, K.; Rosario-Ortiz, F.L. *The impacts of the High Park Fire on water quality, DOM properties, and implications for treatment.* February 2014. USGS Science Center. Fort Collins, CO.

34. Hohner, A.; Writer, J.; Cawley, K.; Summers, R.S.; Rosario-Ortiz, F.L. *Impact of the High Park forest fire on water quality and treatment*. November 2013. American Water Works Association Water Quality and Technology Conference. Long Beach, CA.

35. Hohner, A.; Writer, J.; Cawley, K.; Summers, R.S.; Rosario-Ortiz, F.L. *Impact of the High Park wildfire on source water quality and implications for treatment*. September 2013. American Water Works Association Rocky Mountain Section Annual Conference. Keystone, CO.

36. Hohner, A.; Summers, R.S.; Rosario-Ortiz, F.L. *Source water quality impairment and implications for disinfection byproduct formation.* June 2012. American Water Works Association Annual Conference and Exposition. Dallas, TX.

37. Hohner, A.; Summers, R.S.; Rosario-Ortiz, F.L. *Source water quality characteristics and implications for disinfection byproduct formation in Colorado surface waters.* January 2012. Southern Nevada Water Authority. Las Vegas, NV.

38. Hohner, A. *Source water quality characteristics and implications for disinfection byproduct formation in Colorado surface waters*. December 2011. Front Range Drinking Water Consortium Meeting. Westminster, CO.

39. Hohner, A.; McKnight, D; Summers, R.S.; Rosario-Ortiz, F.L.; *The role of nutrient levels and algae on DBP formation in Colorado watersheds: implications for source water quality management*. November 2011. American Water Works Association Water Quality Technology Conference. Phoenix, AZ.

40. Ghosh, A.; Tang, G.; Seidel, C.; Hohner, A.; Dowdell, K.; Rosario-Ortiz, F.L; Summers, R.S.; Rodgers, M. *Connecting the dots: can climate change influence algal blooms that lead to disinfection byproduct formation in your drinking water?* November 2011.

American Water Works Association Water Quality Technology Conference. Phoenix, AZ.

41. Hohner, A.; McKnight, D; Summers, R.S.; Rosario-Ortiz, F.L. *Characterization of dissolved organic matter in Colorado watersheds: The role of nutrients and algae on DBP formation*. July 2011. International Water Association Natural Organic Matter Conference. Costa Mesa, CA.

42. Hohner, A.; Summers, R.S.; Rosario-Ortiz, F.L. *Colorado source water characteristics and implications for DBP formation*. May 2011. Front Range Drinking Water Consortium Meeting. Westminster, CO.

43. Hohner, A.; Khan, A.; McKnight, D.; Summers, R.S.; Rosario-Ortiz, F. *Evaluating the link between nutrient loadings, algal activity, and formation of disinfection byproducts in Colorado watersheds.* March 2011. American Chemical Society- National Meeting. Anaheim, CA.*

44. Hohner, A.; Allwine, G.; Coons, T.; Monson, R.; Lamb, B. *SF_6 Tracer and CO_2 Advection into a local drainage creek at Niwot Ridge Ameriflux Site*. December 2008. American Geophysical Union Fall Conference. San Francisco, CA.*

DISTINCTIONS

1. Outstanding Teacher Award, Department of Civil and Environmental Engineering, Washington State University (2022)
2. Best Paper Award, American Water Works Association, Water Science & Research Division (2020)
3. Author Spotlight, American Water Works Association, Water Science (2020)
4. Editor's Choice Top 10 Papers, Environmental Science: Water Research & Technology (2018)
5. Exceptional Professor, Voiland College of Engineering and Architecture, Associated Students of WSU (2018)
6. Best Paper Award, Journal American Water Works Association (2015)
7. Selected for Oral Presentation at Gordon Research Seminar: Disinfection Byproducts (2015)
8. Dean's Outstanding Merit Fellowship- University of Colorado at Boulder (2013-2014)
9. Best Poster Presentation, University of Colorado Hydrologic Sciences Symposium (2014)
10. University of Colorado Civil and Environmental Engineering Department Fellowship (2010-2012)
11. SMART Grant Recipient (2007-2009)
12. Washington State University Undergraduate Research Symposium Award (2008)
13. Washington State University Silver Regents Scholarship (2005-2007)
14. College Success Foundation Achiever's Scholarship (2005-2009)

PROFESSIONAL AFFILIATIONS

1. Association of Environmental Engineering and Science Professors
2. American Water Works Association

3. American Chemical Society
4. Society of Women Engineers
5. American Society of Engineering Education

PROFESSIONAL DEVELOPMENT

1. American Society for Engineering Education, DELTA Junior Faculty Institute. March 2021.
2. National Science Foundation Engineering CAREER Proposal Writing Workshop, Arlington, VA. April 2019.
3. American Water Works Association Sustainable Water Management Conference, Seattle, WA, March 2018.
4. Association of Environmental Engineering and Science Professors Education and Research Conference, Phoenix, AZ, May 2019.

SERVICE AND OUTREACH

PROFESSIONAL

1. Project Advisory Committee for Water Research Foundation Project #5168: *Enhancing Drinking Water Treatment Resilience to Wildfire Events*

2. Proposal Review Panelist:
    a) National Science Foundation CBET Environmental Engineering Program (2020)
    b) Invited proposal review panelist (declined), National Science Foundation CBET Environmental Engineering Program (2019)

3. Journal Reviewer (ad hoc):
    a) Environmental Science & Technology: Water
    b) Water Research
    c) Environmental Science & Technology
    d) Water Resources Research
    e) Fire
    f) Journal of Wildland Fire
    g) Environmental Science: Water Research & Technology
    h) Science of the Total Environment
    i) Environmental Science and Pollution Research
    j) Lake and Reservoir Management
    k) American Water Works Association- Water Science
    l) Geo-Institute of ASCE, IFCEE
    m) Frontiers in Water
    n) Environmental Science and Pollution Research

4. Committees:
    a) Vice Chair, University Student Activities Committee, American Water Works association (2022-present)
    b) Led and Organized University Student Activities Committee Academic Achievement Award Review Panel, American Water Works Association (2021, 2022, 2023)

c) Secretary, University Student Activities Committee, American Water Works Association (2020-present)
d) Member, Emerging Water Quality Issues Committee, American Water Works Association (2018-Present)
e) Member, Organic Contaminants Committee, American Water Works Association (2012- 2013)

5. Conference work:
    a) Moderator for *Resilient Water Treatment Systems in Response to Wildfire and Extreme Weather*, American Water Works Association Water Quality and Technology Conference (2023)
    b) Moderator for *Understanding the Impacts of Wildfire on Water Quality*, American Water Works Association Water Quality and Technology Conference (2023)
    c) Organized Special Topics Session: *Impacts of Changing Climate on Source Water Quality, Treatment and System Resiliency* for American Water Works Association Water Quality and Technology Conference (2019)
    d) Moderator for *Physical Chemical Processes* Session, Association of Environmental Engineering and Science Professors Conference (2019)
    e) CU Boulder Hydrologic Sciences Conference Steering Committee (2015)

UNIVERSITY

1. WSU Team Mentoring Program (TMP) Faculty Mentor (2019-present)
    - Bi-weekly meetings with mentees
    - Periodic workshops, social events and presentations
2. WSU Team Mentoring Program Undergraduate Research Workshop Guest Speaker (2019)
3. WSU Undergraduate Research Scholarship Award Reviewer (2018)
4. WSU Future Cougars of Distinction Recruitment (2017-2018)
5. Guest Speaker- WSU College Success Foundation Graduation Celebration (2017)

COLLEGE

1. Faculty Advisor, Society of Women Engineers, WSU (2021-2022)
2. Society of Women Engineers Undergraduate Research Mixer **(**2019)
3. VCEA- Call-a-thon Recruitment Event for Top Scholars (2018-2019)
4. Engineers Without Borders Mentor (2018-present)
5. Washington STate Academic RedShirt (STARS) Program Mentor for First Generation Engineering Students (2017- 2018)
6. VCEA Week of Welcome Event- Faculty Panel (2017, 2018)
7. CU-Boulder STEM Outreach Events CU Boulder (2013-2014)
8. CU Boulder Senior Design Exposition Judge (2013- 2014)

DEPARTMENT

1. Faculty Advisor, WERC Environmental Design Student Competition (2019-2021)
    - Mentored senior design teams in national competition
2. CEE Undergraduate Recruitment and Retention Committee (2019-2022)

- Organized and lead recruitment information events for prospective Washington State high school students, parents, and counselors in Eastern and Western Washington

3. CEE Undergraduate Curriculum Committee (2017- 2021)
4. Fundamentals of Engineering, Environmental Review (2018-2021)
5. Engineering 120 Demonstrations and Guest Lecturer- Environmental Engineering (2017-2022)
6. Faculty Advisor, Air and Waste Management Association, Student Chapter (2019-2020)
7. CEE Certified Students Orientation (2016-2019)
8. Environmental Engineering Faculty Search Committee (2017-2018)
9. PACCAR Lab Technician Search Committees (2018 and 2019)

TEACHING, MENTORING, AND ADVISING

COURSES TAUGHT

1. Fall 2023. Montana State University, Physical and Chemical Treatment Processes (EENV 341), 42 enrolled. *Overall Course Evaluation:* 3.4/5.0

2. Spring 2023. Montana State University, Water Treatment Process Design (EENV 562), 5 enrolled. *Overall Course Evaluation*: 5.0/5.0

3. Spring 2022. Washington State University, Introduction to Environmental Engineering (CE 341), 31 enrolled. *Overall Course Evaluation*: 4.6/5.0

4. Fall 2021. Washington State University, Hazardous Contaminant Pathway Analysis (CE 418/518), 25 enrolled. *Overall Course Evaluation:* 4.7/5.0

5. Fall 2021. Washington State University, Environmental Measurements (CE 415/515), 19 enrolled. *Overall Course Evaluation*: 4.4/5.0.

6. Spring 2021. Washington State University, Introduction to Environmental Engineering (CE 341), 62 enrolled. *Overall Course Evaluation:* 4.6/5.0

7. Fall 2020. Washington State University, Environmental Measurements (CE 415/515), 27 enrolled. *Overall Course Evaluation:* 4.8/5.0

8. Fall 2020. Washington State University, Hazardous Contaminant Pathway Analysis (CE 418/518), 34 enrolled. *Overall Course Evaluation*: 4.9/5.0

9. Spring 2020. Washington State University, Environmental Organic Chemistry (CE 582), 10 enrolled. *Overall Course Evaluation:* 5.0/5.0.

10. Spring 2020. Washington State University, Introduction to Environmental Engineering (CE 341), 57 enrolled. *Overall Course Evaluation*: 4.8/5.0.

11. Fall 2019. Washington State University, Environmental Measurements (CE 415/515), 27 enrolled. *Overall Course Evaluation:* 4.7/5.0

12. Fall 2019. Washington State University, Hazardous Contaminant Pathway Analysis (CE 418/518), 33 enrolled. *Overall Course Evaluation*: 4.8/5.0

13. Spring 2019. Washington State University, Graduate Seminar (CE580/600), 42 enrolled. *Overall Course Evaluation*: 4.5/5.0

14. Spring 2019. Washington State University, Introduction to Environmental Engineering (CE 341), 58 enrolled. *Overall Course Evaluation:* 4.5/5.0

15. Fall 2018. Washington State University, Environmental Measurements (CE 415/515), 16 enrolled. *Overall Course Evaluation:* 4.8/5.0

16. Spring 2018. Washington State University, Introduction to Environmental Engineering (CE 341), 39 enrolled. *Overall Course Evaluation:* 4.6/5.0

17. Fall 2017. Washington State University, Environmental Measurements (CE 415/515), 21 enrolled. *Overall Course Evaluation:* 4.8/5.0

18. Spring 2017. Washington State University, Water and Wastewater Treatment Design (CE 442), 33 enrolled. *Overall Course Evaluation:* 4.7/5.0

19. Spring 2017. Washington State University, Introduction to Environmental Engineering (CE 341), 52 enrolled. *Overall Course Evaluation*: 4.8/5.0

20. Fall 2016. Washington State University, Environmental Measurements (CE 415/515), 11 enrolled. *Overall Course Evaluation*: 5.0/5.0

21. Fall 2016. Washington State University, Hazardous Waste Engineering (CE 418/518), 30 enrolled. *Overall Course Evaluation*: 4.5/5.0

POST-DOCTORAL ADVISING

- Mrittika Rodela, MSU (2023-present)

STUDENTS MENTORED

1. Graduate Thesis Advisor
   a) Caroline Martin, MS Student Environmental Engineering, MSU (2023 – present)
   b) Jack Heneghan, MS Student Environmental Engineering, MSU (2023 – present)
   c) Samanthi Wijerathna, PhD Student Environmental Engineering, MSU (2023-present)
   d) Mrittika Rodela, PhD Graduate Environmental Engineering, WSU (Graduated August 2023)
   e) Saraf Promi, PhD Student Environmental Engineering, WSU (2020-2022)
   f) Lauryn Guerrissi, MS Student Environmental Engineering (Graduated December 2022)
   g) Austin Pelletier, MS Environmental Engineering (Graduated December 2019)
   h) Elizabeth Crain, MS Environmental Engineering (Graduated December 2019)

2. Graduate Advisor (MS, Non-thesis)
   a) McKenzie Butcher (2024)
   b) Anthony Corigliano (WSU, 2022)
   c) Shixi Wang (WSU, 2022)
   d) Karen Vanderlinde (WSU, 2020)

3. Undergraduate Researchers
    a) Benjamin Dallas (2022- 2023), Montana State University
    b) Lauryn Guerrissi (2020), Washington State University
    c) Zayne Nelson (2019), Washington State University
    d) Joshua An (2019), Washington State University
    e) Jered Newcomb (2018-2019), Washington State University
    f) Asa Reyes-Chavez (2018), Washington State University
    g) Noah Leibnitz (2018), Washington State University

4. Graduate Committees
    a) Katherine Wampler, PhD Student, Water Resources Engineering, Oregon State University (Expected 2024)
    b) Sandra Un Jan Contreras, PhD Environmental Engineering, WSU (2023)
    a) Alishan Ahmed, PhD Civil Engineering, North Carolina State University (2023)
    b) Yu-Wei Lin, MS Environmental Engineering (2022)
    c) Ana Granja Villacis, MS Environmental Engineering (2023)
    d) Peizhi Liu, MS Environmental Engineering (2022)
    e) Logan Dickman, MS Civil Engineering, WSU (2022)
    f) Tahsin Zahid, MS Environmental Engineering, WSU (2022)
    g) Mia Suhrbier, MS Environmental Engineering, WSU (2021)
    h) Tyler Patrick, MS Environmental Engineering, WSU (2021)
    i) Claire Farmer, MS Environmental Engineering, University of Colorado (2021)
    j) Sumaiya Saifur, MS Environmental Engineering, WSU (2021)
    k) Taiwo Akinleye, MS Civil Engineering, WSU (2021)
    l) Kamryn Froehle, MS S Civil Engineering, WSU (2020)
    m) Mehnaz Shams, PhD Environmental Engineering, WSU (2018)
    n) Yuhao Tian, PhD Environmental Engineering, WSU (2018)

5. Undergraduate Academic Advising (Washington State University)
    a) 2020-2021: 11 students
    b) 2018-2019: 8 students
    c) 2017-2018: 8 students
    d) 2016-2017: 8 students

6. Senior Design Faculty Mentoring (Washington State University)
    a) 2020-2021: 11 students
    b) 2019-2020: 5 students
    c) 2018-2019: 6 students
    d) 2017-2018: 3 students

7. Undergraduate Faculty Mentoring
    a) Team Mentoring Program (TMP)
        - 2021-2022: 1 student
        - 2020-2021: 3 students
        - 2019-2020: 2 students

    b) Washington STate Academic RedShirt (STARS) Program

- 2017-2018: 4 students

GRADUATE STUDENT SCHOLARSHIPS AND AWARDS

- Mrittika Rodela: Best Dissertation Award, Department of Civil and Environmental Engineering Department, Washington State University, 2023
- Mrittika Rodela: 1st place, 3-Minute Thesis Competition, Civil and Environmental Engineering Department, Washington State University, 2023
- Mrittika Rodela: 3rd Place, 3-Minute Thesis Competition, Voiland College of Engineering and Architecture, Washington State University, 2023
- Lauryn Guerrissi: National Science Foundation Graduate Research Fellowship, 2022
- Saraf Promi: First Place, Engineering & Environmental Sciences, WSU Graduate & Professional Student Association Research Expo, 2022
- Mrittika Rodela: Suksdorf Fellowship, 2019-2021
- Elizabeth Crain: Paul A. Weir Scholarship, 2019
- Austin Pelletier: RH2 Engineering Scholarship, 2018