

Jordyn M. Wolfand, Ph.D., P.E.

Assistant Professor
University of Portland

wolfand@up.edu
(503) 943-8751

ACADEMIC APPOINTMENTS

- 2026– **Associate Professor**, Shiley School of Engineering, University of Portland, Portland, OR
- 2020–2026 **Assistant Professor**, Shiley School of Engineering, University of Portland, Portland, OR
- 2019 **Postdoctoral Research Fellow**, Colorado School of Mines, Golden, CO
Civil & Environmental Engineering
- 2014–2018 **Graduate Research and Teaching Assistant**, Stanford University, Stanford, CA
Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt), Civil & Environmental Engineering
- 2010–2011 **Undergraduate Research Assistant**, Tufts University, Medford, MA
Integrated Multiphase Environmental Systems Lab, Civil & Environmental Engineering

EDUCATION

- Ph.D. **Stanford University, Stanford, CA** (2018)
Civil and Environmental Engineering – Environmental Engineering
- M.S. **Stanford University, Stanford, CA** (2015)
Civil and Environmental Engineering – Environmental Fluid Mechanics and Hydrology
- B.S. **Tufts University, Medford, MA** (2011)
Environmental Engineering

RELEVANT PROFESSIONAL EXPERIENCE

- 2020–2021 **Independent Contractor**, Colorado School of Mines, Golden, CO
- Created hydrologic and hydraulic model of the Los Angeles River Basin to evaluate management decisions
 - Research mentor to undergraduate and graduate students
- 2012–2019 **Senior Staff Engineer** (part-time from 2013), Geosyntec Consultants, Brookline, MA
- Reviewed Storm Water Pollution Plans (SWPPPs) for compliance with state general permits for construction. Expertise in requirements for over 35 U.S. states
 - Performed hydrologic stormwater modeling for municipalities and developments
 - Designed, modeled, and optimized dynamically controlled “smart” stormwater management systems
- 2012 **Engineering Co-op**, Geosyntec Consultants, Columbia, MD
- Assisted in the preparation of construction documents and drawings
 - Assisted with the development of soil erosion and sediment control management plans and stormwater management plans for remediation sites
- 2008–2012 **Outdoor Educator and Section Head** (summers), North Country Camps, Keeseville, NY
- Lead wilderness trips and taught outdoor leadership and survival skills
 - Managed six staff members and oversaw 40 campers ages 13–15

- 2007–2011 **Instructor and Board Member** (part-time), Center for Engineering Education Outreach, Medford, MA
- Instructed K–12 students in engineering and simple programming concepts
 - Developed Science, Technology, Engineering, and Math (STEM) curricula to meet the Massachusetts Frameworks
- 2009 **Stockholm Junior Water Prize Intern** (summer), Water Environment Federation, Alexandria, VA
- 2007 **Research Intern** (summer), University of Maryland, College Park, MD
Aquatic Pathobiology Center, Department of Veterinary Medicine

COURSES TAUGHT

University of Portland

- Introduction to Engineering, EGR 110
- Engineering Computing with Applications, EGR 111
- Exploring Civil and Environmental Engineering Practice, CE 200
- Water Resources Engineering, CE 362
- Water Resources Engineering Laboratory, CE 373
- Watershed Systems Modeling, CE 464/564

Colorado School of Mines - Hydrology and Water Resources Laboratory, CEEN 482

SCHOLARLY WORK

Underline denotes undergraduate author.

Peer-Reviewed Journal Publications

- In Review* **Wolfand, J.M.**, Maurer, T., Seipp, K.Q., Chichilnisky du Lac, A., Sok, S. Oregon's water supply at risk: assessing natural, built, and social hazards for improved risk management.
- 2025 Koucka, M., Poor, C., **Wolfand, J.M.**, Chang, H., Shandas, V., Aiona, A., Stevens, H., Kurtz, T., Hedin, S., Fancher, S., Lighthipe, J., Zucker, A. The First Thirty Years of Green Stormwater Infrastructure in Portland, Oregon. *Sustainability*. 17, 7159. DOI: 10.3390/su17157159
- Chang, H., Granek, E., Gannon, A., **Wolfand, J.M.**, Brahney, J. Convergence Research for Microplastic Pollution at the Watershed Scale. *Environments*. 12(6), 187. DOI: 10.3390/environments12060187
- 2024 Sytsma, A., Philippus, D., **Wolfand, J.M.**, Irving, K., Taniguchi-Quan, K.T., Stein, E.D., Hogue, T.S. Channel restoration in urbanized systems: optimizing channel design using ecological flow targets and future management scenarios. *Journal of the American Water Resources Association*. 60:1175-1192. DOI: 10.1111/1752-1688.13232.
- Blount, K., Pignotti, G., **Wolfand, J.M.** ET Cool Home: Innovative Educational Activities on Evapotranspiration and Urban Heat. *Hydrology and Earth System Sciences*. 2024. 28:7, 1515-1526. DOI: 10.5194/hess-28-1515-2024
- Struzak M., Poor, C.J., **Wolfand, J.M.**, Radke, A. Evaluation of Biochar on Metals, Nutrient, and Microplastics Removal in Bioretention Systems. *Journal of Environmental Engineering*. 150(4): 04024007. DOI: 10.1061/JOEEDU.EEENG-7487

- 2023 **Wolfand, J.M.** Sytsma, A., Taniguchi-Quan, K.T., Stein, E.D., Hogue, T.S. Impact of wastewater reuse on contaminants of emerging concern in an effluent-dominated river. *Frontiers in Environmental Science*. 11. DOI: 10.3389/fenvs.2023.1091229.
- Wolfand, J.M.**, Poor, C.J., Taylor, B., Morrow, E., Radke, A., Diaz-Gunning, L. Microplastics: the occurrence in stormwater runoff and the effectiveness of bioretention systems for removal. 149 (11). *Journal of Environmental Engineering*. DOI: 10.1061/JOEEDU.EEENG-7285
- 2022 **Wolfand, J.M.**[†], Sytsma A.[†], Hennon, V.L., Stein, E.D., Hogue, T.S. Dilution and pollution: assessing the impacts of water reuse and flow reduction on water quality in the Los Angeles River Basin. *ES&T Water*. 2, 1309-1319. DOI: 10.1021/acsestwater.2c00005. [†]Denotes equal first authorship.
- Wolfand, J.M.**, Taniguchi-Quan, K.T., Abdi, R., Gallo, E., Irving, K., Philippus, D., Rogers, J.B., Stein, E.D., Hogue, T.S. Balancing water reuse and ecological support goals in an effluent dominated river. *Journal of Hydrology X*. 15 (100124). DOI: 10.1016/j.hydroa.2022.100124
- Wolfand, J.M.**, Bieryla, K., Ivler, C., Symons, J. Exploring an Engineer's Role in Society: Service Learning in a First-Year Computing Course. *IEEE Transactions on Education*. 65 (4). DOI: 10.1109/TE.2022.3148698
- Abdi, R., Rust, A., **Wolfand, J.M.**, Taniguchi-Quan, K., Irving, K., Philippus, D., Stein, E.D., Hogue, T.S. (2022). Thermal Suitability of the Los Angeles River for Cold Water Resident and Migrating Fish Under Physical Restoration Alternatives. *Frontiers in Environmental Science*. 9 (749085). DOI: 10.3389/fenvs.2021.749085
- 2021 Philippus, D., **Wolfand, J.M.**, Abdi, R., Hogue, T.S. Raspy-Cal: A Genetic Algorithm-Based Automatic Calibration Tool for HEC-RAS Hydraulic Models. *Water*. 13 (3061). DOI: 10.3390/w13213061
- Abdi, R., Rogers, J.B., Rust, A., **Wolfand, J.M.**, Philippus, D., Taniguchi-Quan, K., Irving, K., Stein, E.D., Hogue, T.S. (2021). Simulating the thermal impact of substrate temperature on ecological restoration in shallow urban rivers. *Journal of Environmental Management*. 289 (112560). DOI: 10.1016/j.jenvman.2021.112560
- Panos, C.L., **Wolfand, J.**, Hogue, T.S. Assessing resilience of a dual drainage urban system to redevelopment and climate change. *Journal of Hydrology*. 596 (126101). DOI: 10.1016/j.jhydrol.2021.126101
- Helinski, O., Poor, C.J., **Wolfand, J. M.** Ridding Our Rivers of Plastic: A Framework for Plastic Pollution Reduction Device Selection. *Marine Pollution Bulletin*. 165 (112095). DOI: 10.1016/j.marpolbul.2021.112095
- Blount, W.K., **Wolfand, J.**, Bell, C.D., Ajami, N., Hogue, T.S. Satellites to sprinklers: Assessing the role of climate and land cover change on patterns of urban outdoor water use. *Water Resources Research*. 57, e2020WR027587. DOI:10.1029/2020WR027587
- 2020 Bell, C.D., **Wolfand, J.**, Hogue, T.S. Regionalization of default parameters for urban stormwater quality models. *Journal of the American Water Resources Association*. 56 (6): 995-1009. DOI: 10.1111/1752-1688.12878
- Panos, C.L., **Wolfand, J.**, Hogue, T.S. SWMM Sensitivity to LID Siting and Routing Parameters: Implications for Stormwater Regulatory Compliance. *Journal of the American Water Resources Association*. 1-20. DOI: 10.1111/1752-1688.12867 **Top cited paper in the Journal of the American Water Resources Association (2020-2021).

- Luthy, R.G., **Wolfand, J.**, Bradshaw, J.L. The Urban Water Revolution: Sustainable Water Futures for California Cities. *Journal of Environmental Engineering*. 146 (7): 04020065. DOI: 10.1061/(ASCE)EE.1943-7870.0001715
- Bell, C.D., **Wolfand, J.**, Panos, C., Bhaskar, A., Gilliom, R., Hogue, T., Hopkins, K., Jefferson, A. Stormwater control impacts on runoff volume and peak flow: a meta-analysis. *Hydrological Processes*. 1-19. DOI: 10.1002/hyp.13784
- Boehm, A.B., Bell, C.D., Fitzgerald, N.J.M, Gallo, E, Higgins, C.P., Hogue, T.S., Luthy, R.G., Portmann, A.C., Ulrich, B.A., **Wolfand, J.M.** Biochar-augmented biofilters to improve pollutant removal from stormwater - can they improve receiving water quality? *Environmental Science: Water Research & Technology*. 6, 1520-1537. DOI: 10.1039/D0EW00027B
- 2019 **Wolfand, J.**, Seller, C., Bell, C.D., Cho, Y.M, Oetjen, K., Hogue, T.S., Luthy, R.G. Occurrence of urban-use pesticides and management with enhanced stormwater control measures at the watershed scale. *Environmental Science & Technology*. 53(7), 3634–3644, DOI: 10.1021/acs.est.8b05833
- 2018 Pritchard, J.C., Cho, Y.M., Ashoori, N., **Wolfand, J.**, Sutton, J.D., Carolan M.E., Gamez, E., Doan, K., Wiley, J.S., Luthy, R.G. Benzotriazole Uptake and Removal in Vegetated Biofilter Mesocosms Planted with *Carex praegracilis*. *Water*. 10(11), 1605, DOI: 10.3390/w10111605
- Wolfand, J.**, Bell, C.D., Boehm, A.B., Hogue, T.S., Luthy, R.G., Multiple pathways to bacterial load reduction by stormwater best management practices: tradeoffs in performance, volume, and treated area. *Environmental Science & Technology*. 52, 6370–6379, DOI: 10.1021/acs.est.8b00408.
- 2016 **Wolfand, J.**, LeFevre, G., and Luthy, R. Metabolization and Degradation Kinetics of the Urban-use Pesticide Fipronil by White Rot Fungi *Trametes versicolor*. *Environmental Science: Processes & Impacts*. 18(10) 1249–1362, DOI: 10.1039/c6em00344c.
- Other Publications**
- 2026 Bieryla, K., Abbasi, S., **Wolfand, J.M.** Student Retention in Engineering: Interacting Factors Across Majors. *2026 ASEE Annual Conference & Exposition*. Charlotte, NC. *Upcoming (June 2026)*.
- 2024 Abbasi, S., Bieryla, K., **Wolfand, J.M.** Engineering major selection: Impacting factors and facilitating classroom strategies. *2024 ASEE Annual Conference & Exposition*. Portland, OR. <https://peer.asee.org/47288>
- Bieryla, K., Abbasi, S., **Wolfand, J.M.** Early Design Sprint Impact on Engineering Identity and Entrepreneurial Mindset in the First Year. *2024 ASEE Annual Conference & Exposition*. Portland, OR. <https://peer.asee.org/47210>
- 2023 **Wolfand, J.M.** Bieryla, K., Ivler, C. Engineering Identity through Litter Pickup as Service Learning. *2023 ASEE Annual Conference & Exposition*. Baltimore, MD. <https://peer.asee.org/43319>
- 2022 Abbasi, S., **Wolfand, J.**, Vijlee, S. Constructive Controversy: Optimizing Decision Making in Engineering Design Teams. *2022 ASEE Annual Conference & Exposition*. Minneapolis, MN. <https://peer.asee.org/40665>
- 2021 Stein, E.D., Taniguchi-Quan, K.T., **Wolfand, J.**, Gallo, E., Irving, K., Philippus, D., Abdi, R., Hennon V., Tinoco, A., Mohammadi, P., Rust, A., Hogue, T.S. Process and Decision Support Tools for Evaluating Flow Management Targets to Support Aquatic Life and Recreational Beneficial Uses of the Los Angeles River: Los Angeles River

Environmental Flows Project. *Technical Report 1196. Southern California Coastal Water Research Project*. Costa Mesa, CA.

Stein, E.D., **Wolfand, J.M.**, Abdi, R., Irving, K., Hennon, V., Taniguchi-Quan, K., Philippus, D., Tinoco, A.*, Rust, A., Gallo, E., Bell, C., Hogue, T.S. Assessment of Aquatic Life Use Needs for the Los Angeles River. *Technical Report 1154. Southern California Coastal Water Research Project*. Costa Mesa, CA.

- 2019 Gordon, B., Quesnel, K.Q., Hamel, P., **Wolfand, J.** Using Nature to Tackle Water Infrastructure Challenges: Frontiers of Green Infrastructure Research at Stanford. *Water in the West – Insights*. Stanford, CA.
- 2015 ReNUWIt. Briefing book from Technology Diffusion Workshop on Open Water Unit Process Wetlands, Berkeley, CA. (**J. Wolfand** as a contributor on the regulatory framework).
- 2011 **Wolfand, J.** Fate and Transport of Nanoscale Buckminsterfullerene Aggregated (nC₆₀) in Heterogeneous Porous Media. *Senior Honors Thesis*, Tufts University, Medford, MA.
- 2007 **Wolfand, J.** Active Ingredient in Oral Contraceptives Alters Male Competitive Courtship Behaviors and Secondary Sexual Characteristics in Fathead Minnows. *Journal of the U.S. Stockholm Junior Water Prize*.

Invited Presentations

- 2025 Plastics to Pharmaceuticals: Managing Pollution in Urban Watersheds. Portland State University Environmental Engineering Seminar, Portland, OR, February 2025.
- Plastics to Pharmaceuticals: Managing Pollution in Urban Watersheds. Oregon State University Water Resources Engineering Seminar Series, Corvallis, OR, January 2025.
- 2023 Oregon's water supply at risk: assessing natural, built, and social hazards and leveraging machine learning to inform solutions. Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) Biennial Colloquium 2023, Tahoe City, CA, June 2023.
- 2022 The Los Angeles River Environmental Flows Project: Managing Trade-offs in Water Reuse & Ecosystem Services. PSU/USGS/OSU Hydrology Seminar Series, Remote, May 2022.
- Alumni Panel. ReNUWIt Annual Meeting, Stanford, CA, May 2022.
- Managing urban water quality at the watershed scale. Washington State University Vancouver – Interdisciplinary Sciences Seminar, Vancouver, WA, May 2022.
- 2021 Microplastics in Stormwater: State of Knowledge and a Portland Case Study (Keynote Speaker). Oregon Section of the Environmental Water Resources Group – Sustainable Stormwater Symposium, Remote, September 2021.
- Managing wastewater discharge for environmental flows in the Los Angeles River. ReNUWIt Annual Meeting, Remote, May 2021.
- Water Careers Panel. Colorado College, Remote, May 2021.
- 2018 Managing urban water quality with enhanced stormwater control measures. Colorado State University, Fort Collins, CO, October 2018.
- 2017 Fungi for Filtration and Other Natural Systems for Stormwater Treatment. Department of Environmental Studies Public Seminars, San Jose State University, San Jose, CA, March 2017.

- 2016 Metabolization and degradation kinetics of the urban-use pesticide fipronil by white rot fungi *Trametes versicolor* (invited). ACS Fall Meeting, Philadelphia, PA, August 2016.
- Fungal Degradation of the Urban Use Pesticide Fipronil (invited). CA-NV Section AWWA Spring Conference, Sacramento, CA. March 2016.

Conference Presentations

- 2025 Fischer, P., Newman, C., Wolfand, J.M., Poor, C.J. Evaluating Biofilter Performance in Improving Roof Runoff Water Quality. Society of Environmental Toxicology and Chemistry (SETAC) North America 46th Annual Meeting, Portland, OR, November 2025. *Talk.*
- Lang, E., Kaye, J., Bell, C., Wolfand, J.M. Stormwater Policy Considerations for Infill Development: Denver as a Case Study. EWRG Stormwater Symposium, Portland, OR, September 2025. *Poster. **Awarded best poster presentation.*
- Fischer, P., Newman, C., Wolfand, J.M., Poor, C.J. Evaluating Biofilter Performance in Improving Roof Runoff Water Quality. EWRG Stormwater Symposium, Portland, OR, September 2025. *Poster.*
- 2024 Wolfand, J.M., Maurer, T., Seipp, K.Q., Chichilnisky du Lac, A., Sok, S. Resilience Planning for Oregon's Surface Water Supplies: Evaluating Natural, Built, and Social Stressors. AGU Fall Meeting, Washington D.C., December 2024. *Poster.*
- Granek, E.F., Gannon, A., Baechler, B., Talbot, R., Traylor, S., Brander, S., Harper, S., Wolfand, J. Microplastics in the Pacific Northwest: What We Know and Where We Need to Go! Western Society of Naturalists Fall Meeting, Portland, OR, November 2024. *Talk.*
- 2023 Chang, H., Granek, E.F., Wolfand, J., Brahney, J., Gannon, A., Hunter, N., Carvill, S. Microplastic pollution at the river basin scale: a convergence approach. AGU Fall Meeting, San Francisco, CA, December 2023. *Poster.*
- Struzak, M., Wolfand, J., Poor, C.J. Biochar Amended Bioretention Systems for Pollution Removal. EWRG Stormwater Symposium, Portland, OR, September 2023. *Poster. **Awarded audience favorite in student poster competition.*
- Wolfand, J., Poor, C.J., Taylor, L.H., Chang, H., Granek, E., Brahney, J. Microplastic pathways in the Portland, OR region: Results from stormwater and atmospheric sampling. American Chemistry Society (ACS) Fall Meeting, San Francisco, CA, August 2023. *Talk.*
- Wolfand, J., Bieryla, K., Ivler, C. Engineering Identity through Litter Pickup as Service Learning. American Society of Engineering Education (ASEE) Annual Conference, Baltimore, MD, June 2023. *Talk.*
- Granek, E., Traylor, S., Talbot, R., Wolfand, J., Poor, C.J., Taylor, B., Morrow, E., Radke, A., Diaz-Gunning, E., Microplastics and Municipal Stormwater. Oregon Association of Clean Water Agencies (ORACWA) Stormwater Summit, Corvallis, OR, May 2023. *Talk.*
- Chang, H., Granek, E., Carvill, S., Hunter, N., Brahney, J., Wolfand, J., Geography of Microplastic: A Social-Ecological-Technological Systems Approach. AAG Annual Meeting, Denver, CO, March 2023. *Talk.*
- 2022 Blount, K., Pignotti, G., Wolfand, J. Feelin' the Heat: Adapting a Classroom Activity on Urban Heat and Water Dynamics for Informal Learning Experiences. AGU Fall Meeting, Chicago, IL, December 2022. *Talk.*

Chang, H., Brahney, J., Carvill, S., Granek, E.F., Hunter, N., Wolfand, J. A social-ecological-technological systems approach to understanding microplastic pollution at the river basin scale. AGU Fall Meeting, Chicago, IL, December 2022. *Talk*.

Hogue, T.S., Sytsma, A., Philippus, D., Wolfand, J., Irving, K., Taniguchi-Quan, K., Stein, E.D. Channel restoration in highly urbanized systems: using ecological flow targets to optimize channel design under future management scenarios. AGU Fall Meeting, Chicago, IL, December 2022. *Poster*.

Hurst, P. Granek, E., Wolfand, J., Chang, H. Moss (*Orthotrichum Lyelli*) as a Bioindicator for Airborne Microplastic Pollution. American Water Resources Association Annual Meeting, Seattle, WA, November 2022. *Poster*.

Systma, A., Philippus, D., Wolfand, J.M., Irving, K., Taniguchi-Quan, K., Stein, E.D., Hogue, T.S. Channel Restoration in Highly Urbanized Systems: Using Ecological Flow Targets to Optimize Channel Design Under Future Management Scenarios. American Water Resources Association Annual Meeting, Seattle, WA, November 2022. *Talk*.

Wolfand, J., Maurer, T., Seipp, K.Q., Sok, S., Neufeldt, D. Oregon's Water Supply at Risk: Assessing Natural, Built, and Social Hazards to Inform Solutions. American Water Resources Association Annual Meeting, Seattle, WA, November 2022. *Talk*.

Sytsma, A., Wolfand, J., Hennon, V., Stein, E., Hogue, T. Dilution and Pollution: Assessing the Impacts of Water Reuse and Flow Reduction on Water Quality in the Los Angeles River Basin. AWRA 2022 Spring Conference, Tuscaloosa, AL, April 2022. *Talk*.

Hennon, V., Wolfand, J., Sytsma, A., Stein, E., Hogue, T.S. Dilution and pollution: effects of wastewater reuse on water quality in the Los Angeles River. 12th Urban Drainage Modeling Conference, Remote, January 2022. *Talk*.

Wolfand, J. Sytsma, A., Philippus, D., Taniguchi-Quan, K., Abdi, R., Gallo, E., Irving, K., Rogers, J.B., Stein, E.D., Hogue, T.S. The Los Angeles River Environmental Flows Project: Managing Trade-offs in Water Reuse and Ecosystem Services. 12th Urban Drainage Modeling Conference, Remote, January 2022. ****Awarded best poster presentation.**

2021 Sytsma, A., Wolfand, J., Hogue, T.S. A Machine Learning Model for Urban Water Quality Predictions in the Los Angeles River. AGU Fall Meeting, Remote, December 2021. *Talk*.

Wolfand, J. Bieryla, K., Ivler, C.M., Symons, J.E. Changing Attitudes Towards Plastic Pollution: Service Learning in a First-year Computing Course. AGU Fall Meeting, Remote, December 2021. *Talk*.

Wolfand, J., Abdi, R., Gallo, E.M., Hennon, V., Irving, K., Philippus, D., Taniguchi-Quan, K., Sytsma, A., Taylor, J., Stein, E.D., Hogue, T.S. The Los Angeles River Environmental Flows Project: Balancing Water Reuse and Ecological Support Goals in an Effluent Dominated River. AGU Fall Meeting, Remote, December 2021. *Poster*.

Wolfand, J.M., Poor, C.J., Taylor, B.L.H. Effectiveness of Bioretention Systems to Reduce Microplastics Pollution in Portland, OR. Society of Environmental Toxicology and Chemistry (SETAC) North America 42nd Annual Meeting, Remote, November 2021. *Talk*.

Diaz-Gunning, E., Bermani, K., Wolfand, J.M., Poor, C.J. Oregon Section of the Environmental Water Resources Group – Sustainable Stormwater Symposium, Remote, September 2021. *Poster*.

- Wolfand, J. Making lemonade out of a lemon: How the 2020 crash course in online teaching and virtual communication may positively impact our profession. 2021 AEESP "Virtual Appetizer," Remote, July 2021. *Panel Discussion*.
- 2020 Abdi, R., Taylor, J., Rust, A.J., Wolfand, J.M., Philippus, D., Taniguchi-Quan, K., Irving, K., Hennon, V., Stein, E.D., Hogue, T.S. Evaluating the impact of substrate temperature on thermal habitat suitability and ecological restoration in shallow urban rivers. AGU Fall Meeting, Remote. December 2020. *Talk*.
- Helinski, O., Tinoco, A., Membrere, T., Wolfand, J.M., Poor, C.J. Remote Undergraduate Engineering Research: Pros, Cons, and Tips. AGU Fall Meeting, Remote. December 2020. *Talk*.
- Hennon, V., Gallo, E.M., Wolfand, J.M., Tinoco, A., Abdi, R., Hogue, T.S. Assessing the Impact of Water Reuse on Water Quality in the Los Angeles River. AGU Fall Meeting, Remote, December 2020. *Poster*.
- Philippus, D., Wolfand, J.M., Abdi, R., Hogue, T.S. Raspy-Cal: A Genetic Algorithm-Based Open-Source Python Program for Automatic Calibration of HEC-RAS Hydraulic Models. AGU Fall Meeting, Remote, December 2020. *Poster*.
- Wolfand, J., D. Philippus, R. Abdi, J. Taylor, K. Irving, K. Taniguchi-Quan, E.D. Stein, T.S. Hogue. Wastewater discharges as a management tool to support beneficial uses of urban rivers. AGU Fall Meeting, Remote, December 2020. *Talk*.
- 2019 Wolfand, J., Seller, C., Bell, C.D., Cho, Y.M., Oetjen, K., Hogue, T.S., Luthy, R.G. Managing urban-use pesticides with enhanced green infrastructure on the watershed scale. 11th National Monitoring Conference, Denver, CO, March 2019. *Talk*.
- 2018 Wolfand, J., Seller, C., Bell, C.D., Cho, Y.M., Oetjen, K., Hogue, T.S., Luthy, R.G. Managing urban-use pesticides with enhanced green infrastructure on the watershed scale. AGU Fall Meeting, Washington D.C., December 2018. *Talk*.
- Brown, P., Wolfand, J., Luthy R.G., Amirbahman, A., James, C. Optimization and Development of a Biodegradable Scaffold to Remove Nutrients from Stormwater. EWRI Congress, Minneapolis, MN, June 2018. *Talk*.
- Wolfand, J., Seller, C., Cho, Y.M., Hogue, T.S., Luthy, R.G. Modeling reduction of bacteria and pyrethroids by enhanced stormwater best management practices (BMPs) on a watershed scale. EWRI Congress, Minneapolis, MN, June 2018. *Talk*.
- 2017 Wolfand, J., Bell, C.D., Boehm, A.B., Hogue, T.S., Luthy, R. G. Predicting Bacteria Removal by Enhanced Stormwater Control Measures (SCMs) at the Watershed Scale. AGU Fall Meeting, New Orleans, LA, December 2017. *Poster*.
- Wolfand, J., Bell, C.D., Boehm, A.B., Hogue, T.S., Luthy, R. G. Modeling Removal of Fecal Indicator Bacteria by Enhanced Stormwater Best Management Practices (BMPs) on a Watershed Scale. Annual AWRA Conference, Portland, OR, November 2017. *Talk*.
- Wolfand, J., Hogue, T., Boehm, A., Luthy, R. Predicting Fecal Indicator Bacteria Fate and Removal in Urban Stormwater at the Watershed Scale. EWRI Congress, Sacramento, CA, May 2017. *Talk*.
- 2016 Wolfand, J., Hogue, T., Boehm, A. Luthy, R. Predicting Fecal Indicator Bacteria Fate and Removal in Urban Stormwater at the Watershed Scale. AGU Fall Meeting, San Francisco, CA, December 2016. *Talk*.
- Wolfand, J., Hogue, T., Boehm, A. Luthy, R. Modeling enhanced stormwater treatment technologies for fecal indicator bacteria at the watershed scale. Symposium on Urban

Water Infrastructure; Stormwater Capture, Treatment and Reuse, Golden, CO, November 2016. *Poster*.

Wolfand, J., Hogue, T., Luthy, R. Modeling enhanced stormwater treatment technologies for water quality benefit and regulatory compliance. Statewide Water Reuse Forum, Sacramento, CA, September 2016. *Poster*.

Wolfand, J., LeFevre, G., and Luthy, R. White rot fungi for enhanced stormwater treatment: degradation of the urban-use pesticide, fipronil. Gordon Conference: Environmental Sciences – Water, Holderness, NH, June 2016. *Poster*.

Quesnel, K. and Wolfand, J. Water Energy Nexus. Vail Global Energy Forum, Beaver Creek, CO, January 2016. *Video Presentation*.

- 2011 Walker, D.I., Wolfand, J., Wang, Y., Bai, C., Li, Y., Abriola, L.M., Pennell, K.D. Transport and Retention of Fullerene Aggregates in Heterogeneous Two Dimensional (2-D) Aquifer Cells Containing Natural Aquifer Sands. AGU Fall Meeting, San Francisco, CA, December 2011. *Poster*.

Media Coverage

1. Bhatia, M. Study says Portland is a national leader in green stormwater infrastructure. *Oregon Public Broadcasting*, August 2025. <https://www.opb.org/article/2025/08/27/think-out-loud-study-says-portland-national-leader-green-stormwater-infrastructure/>
2. Brown, K. Plastic-choked rivers in Ecuador are being cleared with conveyor belts. *BBC Future Planet*, April 2024. <https://www.bbc.co.uk/future/article/20240419-ecuadors-conveyor-belt-to-clear-river-plastic>
3. Kudos Showcase. Stopping microplastics from entering our rivers. *Kudos Showcases – American Society of Civil Engineers (ASCE)*, November 2023. <https://www.growkudos.com/publications/10.1061%25252Fjoeedu.eeeng-7285/reader>
4. The Katherine Bisbee II Fund of The Oregon Community Foundation Provides University of Portland an Opportunity to Safeguard Oregon's Water Supply. *The Oregon Alliance of Independent Colleges & Universities News*, June 2023. <https://oaicu.org/katherine-bisbee-ii-fund-of-the-ocf-provides-university-of-portland-an-opportunity-to-safeguard-oregons-water-supply/>
5. Landers, J. Reuse can affect water quality in unintended ways, study finds. *American Society of Civil Engineers Civil Engineering Magazine*, December 2022. <https://www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/article/2022/12/reuse-can-affect-water-quality-in-unintended-ways-study-finds>
6. Profita, C. Portland researchers track microplastic pollution in Columbia River Basin. *Oregon Public Broadcasting*, June 2022. <https://www.opb.org/article/2022/06/21/researchers-track-microplastic-pollution-columbia-river-basin/>

GRANTS AND FELLOWSHIPS

External – Funded

Katherine Bisbee II Fund of the Oregon Community Foundation (co-PI, \$8,000): *Long-Term Efficacy of Roof Runoff Filters for Pollution Control* (2024), Awarded Nov. 2024.

Katherine Bisbee II Fund of the Oregon Community Foundation (co-PI, \$11,000): *Low-Cost Solutions for Treating Roof Runoff* (2023), Awarded Nov. 2023.

National Science Foundation (co-PI, \$149,989, UP portion: \$8,870): *SRS-RN Track 2: MACRO-SETS: Microplastics Across the Columbia River basin to the Ocean - Social-Ecological-Technological System* (2022), Awarded Jan. 2022

Katherine Bisbee II Fund of the Oregon Community Foundation (PI, \$10,000): *Oregon's water supply at risk: assessing natural, built, and social hazards and leveraging machine learning to inform solutions* (2022), Awarded Dec. 2021

Oregon Sea Grant SEED Project (PI, \$50,000): *Reducing microplastic pollution from runoff in urban watersheds* (2021), Awarded Jan. 2021

Katherine Bisbee II Fund of the Oregon Community Foundation (PI, \$10,000): *Water Supply and Wildfire Risk: Where are Priority Areas for Forest Restoration in Oregon?* (2021), Awarded Dec. 2020

External – Unfunded

National Science Foundation (co-PI, \$437,855): Collaborative Research: Transforming WUI Fire Resilience: An Innovative Systems Approach (2025).

National Science Foundation (PI, \$419,867): RUI: Untangling Microplastics Processes in Stormwater; From Road Dust to Catch Basins (2025).

National Science Foundation (co-PI, UP portion: \$244,454): SCC-IRG Track 1: Integrating Community Dynamics, Environmental Data, and AI to Advance Green Stormwater Infrastructure Sustainability in Urban, Environments (2024).

Oregon Sea Grant (co-PI, \$227,652): *Microplastics Science Orienting Solutions (MP SOS): Sources, Impacts, and Strategies for Oregon* (2022–2026).

National Science Foundation (co-PI, \$261,877): *Focused-CoPe: PiNCHRS: Pacific Northwest Coastal Hazards to Regional Shellfish Community-based HUB* (2022–2026).

National Science Foundation (co-PI, \$255,750): *DISES: Integrating socio-environmental equity into adaptive management of green stormwater infrastructure for mitigating urban heat impacts* (2021-2025).

Internal – Shiley Grant for Faculty Research & Development:

2026 \$12,000 – Plastic Pollution in Portland Roadways

\$1,250 – Denver Stormwater Infill Development

2025 \$2,945 – Denver Stormwater Infill Development Site Travel

\$2,500 – Denver Stormwater Infill Development

2024 \$15,000 – Microplastics in Atmospheric Deposition and Roof Runoff

\$3,500 – Microplastics in Atmospheric Deposition in Portland

2023 \$5,000 – Manuscript Writing Support

\$2,135 – American Chemistry Society (ACS) Fall Meeting

2022 \$6,500 – Summer stipend and supplies to support existing research projects

\$2,500 – Fall semester student stipends for microplastics field and lab work

2021 \$15,000 – Shiley SWEO Fellowship: Development of external proposals to evaluate microplastics in stormwater

\$16,068 – Matching Funds for External Grant – Oregon Sea Grant (*with co-PI Cara Poor*)

2020 \$3,000 – Impacts of wastewater recycling on environmental flows on the Los Angeles River and development of HEC-RAS autocalibration tool

Internal – Other Grants & Awards

2026 \$2,000 – UP Faculty Butine Award: American Society for Engineering Education (ASEE) Annual Conference

\$1,000 – UP Collaborative Research Grant: Evaluating Stormwater Policy Implications for Infill Development in Denver, CO

2025 \$5,000 – Method Development for Microplastic Quantification

2024 \$2,000 – UP Faculty Butine Award: American Geophysical Union (AGU) Fall Meeting

\$1,500 – KEEN Illumination and Elevation Grant: Integrating Resiliency & Sustainability into Sophomore-Level Civil Engineering

2023 \$948 – Faculty Butine Award: American Society for Engineering Education (ASEE) Annual Conference

\$1,000 – KEEN Award: Integrating the Entrepreneurial Mindset into the First Year Experience

\$2,000 – UP Faculty Butine Award: American Society for Engineering Education (ASEE) Annual Conference

2022 \$1,000 – UP Provost's Initiative for Undergraduate Research: Using social media to understand public perceptions of wildfire

2021 \$15,000 – Shiley SWEQ Fellowship: Development of external proposals to evaluate microplastics in stormwater

\$1,500 – UP Provost's Initiative for Undergraduate Research: Using machine learning to uncover patterns in water quality in the Los Angeles River Watershed

2015 \$100,000 – UPS Endowment Fund, Stanford University

2013 \$148,000 – Goldman Graduate Fellowship, Stanford University

\$74,000 – Akiko Yamazaki & Jerry Yang Engineering Fellowship, Stanford University

AWARDS AND HONORS

2025–2028 Margaret M. and Vincent P. Aquino Professor of Engineering

2024 Faculty Award for Outstanding Teaching, University of Portland

2023 Shepard's Shepherd, University of Portland, for positive impact on first-year students

2022 Rudolph Hering Medal, American Society of Civil Engineers, Environmental and Water Resources Institute

Best Poster Presentation, 12th Urban Drainage Modeling Conference, Costa Mesa, CA

2016 Association of Environmental Engineering and Science Professors Video Contest – Honorable Mention

2015 Stanford Energy Club Video Competition for the Vail Global Energy Forum – Winner
University of South Florida Reclaim Video Contest – Winner

2011 Tufts Civil and Environmental Engineering Earle F. Littleton Award

2010 Tufts Civil and Environmental Engineering Cataldo Award

Howard Sample Prize in Physics

2007

U.S. Stockholm Junior Water Prize – Maryland State Winner and National Finalist

STUDENTS ADVISED

2020– **Undergraduate Research Mentor**, University of Portland, Portland, OR

1. N. Mibach, Civil Engineering, 2026–
2. M. Scarboro-Ford, Environmental Engineering, 2026–
3. C. Newman, Civil Engineering, 2025–
4. C. Ughweri, Civil Engineering, 2026
5. P. Fischer, Civil Engineering, 2025–2026
6. A. Singley, Mathematics, 2023–2026
7. J. Hettinger, Civil Engineering, 2024–2025
8. E. Lang, Civil Engineering, 2024–2025
9. J. Kaye, Civil Engineering, 2024–2025
10. E. Furuya, Civil Engineering, 2024–2025
11. A. Gonzalez, Civil Engineering, 2024
12. L. Harrington, Mechanical Engineering, 2024
13. D. Madrigal, Mechanical Engineering, 2024
14. A. Burton, Mechanical Engineering, 2024
15. D. Padilla, Civil Engineering, 2024
16. T. Sakata, Computer Science, 2024
17. M. Struzak, Civil Engineering, 2022–2024
18. D. Neufeldt, Mechanical Engineering, 2022
19. N. Rhodes, Environmental Science, 2022
20. A. Radke, Civil Engineering, 2021–2022
21. D. Battaglino, Civil Engineering, 2021–2022
22. E. Diaz-Gunning, Civil Engineering, 2021–2022
23. M. Stone, Mechanical Engineering, 2021–2022
24. P. Mohammadi, Computer Science, 2021–2022
25. S. Sok, Civil Engineering, 2021
26. A. Tinoco, Civil Engineering, 2020–2022
27. K. Bermami, Environmental Studies, 2021
28. O. Helinski, Civil Engineering, 2020–2021

2020– **Senior Capstone Advisor**, University of Portland, Portland, OR

- Crestview Green Traffic Improvements, partner Kittelson & Associates (2024–2025)
- Outfall 59 Stormwater Treatment, partner City of Portland, OR (2024–2025)
- UP Campus Intersection Design, partner Kittelson & Associates (2023–2024)
- Outfall 65 Stormwater Treatment, partner City of Portland, OR (2023–2024)
- Indian Health Service water reuse project, partner Indian Health Service (2022)
- Outfall 73A Improvements, partner City of Portland, OR (2022)
- EPA Rainworks Competition, partner Lease Crutcher Lewis (2021–2022)*
- Stormwater Improvements to International Way, partner City of Milwaukie, OR (2020–2021)
- Marine debris capture device, faculty-sponsored project (2020–2021)

* Honorable Mention in 10th Annual EPA Rainworks Competition

- 2019–2020 **Research Mentor**, Colorado School of Mines, CO
- C. Panos, Ph.D. student
 - K. Blount, Ph.D. student
 - V. Hennon, M.S. student
 - D. Philippus, Undergraduate student
- 2015–2018 **Research Mentor**, Stanford University, Stanford, CA
- P. Brown (2016–2018), undergraduate at Stanford University
 - C. Seller (2017), Master's student at the University of Stuttgart
 - C. Stanhke (2015), undergraduate at the University of Portland

SERVICE

University of Portland

- 2025 Brian Gage Environmental Leadership Fellow Committee, University of Portland
- 2022–2023 Honors Mentor, University of Portland
- 2022–2025 Faculty Compensation Committee, University of Portland
- 2021–2025 Trained Search Advocate, University of Portland

Shiley School of Engineering

- 2026– Shiley Grants Committee
- 2022– Various Recruitment/Outreach Activities: Weekend on the Bluff, Parents Weekend, Academic Preview Weekend
- 2025–2026 Creation of ABET Self-Study Template
- 2025–2026 EGR 111 Task Force
- 2024 EGR 110 Course Co-coordinator
- 2024 Academic Advisor Hiring Committee
- 2024 Search Advocate, Director of Student Placements and Instructor Hiring Committee
- 2020–2023 Computing Committee
- 2022 Client, Atmospheric Deposition Sampler Capstone Team, Mechanical/Electrical Eng.
- 2022 Mechanical Engineering Instructor Hiring Committee
- 2021–2022 Civil Engineering Instructor Hiring Committee
- 2021–2022 Civil Engineering Tenure Track Hiring Committee
- 2021–2022 Client, Litter Grabber Capstone Team, Mechanical Engineering
- 2021–2022 Client, LitterApp Capstone Team, Computer Science
- 2021 Shiley Tutoring Working Group

Professional

- 2020– Science Advisor, Blue Forest Conservation
- 2019– Peer Reviewer: Ecological Engineering, Environmental Science and Pollution Research, Environmental Science Water Research & Technology, Environmental Science & Technology, Frontiers in Hydrology, Journal of Water Resources Planning & Management, Journal of Sustainable Water in the Built Environment, Water, Water Resources Research, Scientific Reports
- 2023 Co-organizer of session, *Improving Water Quality by Understanding Environmental Chemical Processes: A Symposium in Honor of Richard G. Luthy*, ACS Fall Meeting
- 2021 Stakeholder Advisory Member, Portland State University – Microplastics in Oregon's water: connecting seafood studies to policy solutions
- 2020–2021 M.S. Thesis Committee Member, Victoria Hennon, Colorado School of Mines

2020 Expert Reviewer, California Environmental Protection Agency

Community

- 2022 **Instructor**, Special Topics: Plastics in the Environment (GEOG 510), Center for Geography Education in Oregon, Portland State University, Portland, OR
- Co-instructed a four-week course for K-12 teachers on plastics in the environment, including a field sampling day
- 2019 **Instructor**, Research Experience for Teachers, Water-Energy Education for the Next Generation, Colorado School of Mines, Golden, CO
- Co-led a week-long experience for K-12 teachers on stormwater modeling and green infrastructure
- 2014–2019 **Volunteer**, ReNUWIt, Stanford, CA
- Instructed water activity at the Lawrence Hall of Science in Berkeley, CA
 - Volunteered at Water Bar, an exhibit at the Cantor Arts Center in Stanford, CA
 - Led activity and lecture on stormwater quality in Environmental Science class at Woodside High School in Woodside, CA
 - Reviewed over 200 summer Research Experiences for Undergraduates (REU) applications
- 2014–2018 **Volunteer Tutor**, East Palo Alto Tennis and Tutoring, Stanford, CA
- Provided weekly individual academic instruction to high school students
 - Encouraged long-term academic achievement and accountability
 - Mentored three students in total, all first-generation college degree seekers

PROFESSIONAL CREDENTIALS AND MEMBERSHIPS

Professional Engineer, Civil Engineering, Oregon (#96332)

Association of Environmental Engineering and Science Professors

Council on Undergraduate Research

American Society of Civil Engineers

American Geophysical Union

American Water Resources Association

OTHER PROFESSIONAL DEVELOPMENT

2024 NSF Review Panelist

2021 NSF CAREER Workshop, Remote

Pacific Northwest Consortium on Plastics Annual Meeting, Remote

2017 Rising Environmental Leader, Rising Environmental Leaders Program, Stanford, CA