

## **Melanie Malone, Ph.D.**

Email: drmalone@uw.edu

### **ACADEMIC APPOINTMENTS**

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- Associate Professor, School of Interdisciplinary Arts and Sciences, University of Washington Bothell, 2023 – present
- Assistant Professor, School of Interdisciplinary Arts and Sciences, University of Washington Bothell, 2018 – 2023
- Adjunct Faculty, Department of Geography, University of Washington, Seattle 2021- present
- Assistant Professor of Critical and Physical Earth Sciences, The Oregon Extension, 2017
- Affiliate Assistant Professor of Critical and Physical Earth Sciences, Department of Biology and Chemistry, Eastern Mennonite University, 2017
- NSF Integrative Graduate Education and Research Traineeship (IGERT) Fellow, 2013- 2017

### **EDUCATION**

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Portland State University, Portland, OR <b>Ph.D., Earth, Environment and Society</b>	2017
Oregon State University, Corvallis, OR <b>M.S., Soil Science</b>	2008
Williams College, Williamstown, MA <b>B.A., Geology and English Double Major</b>	2005

### **CURRENT RESEARCH PROJECTS**

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#### **Tracing Community Connections, Contamination, and Erosion in Hawaii (2024 to present)**

- Sample contaminants of concern in soils and water from 2023 Lahaina Wildfires
- Sample erosion sites on Maui and conduct GIS/remote sensing analysis
- Train native and indigenous Hawaiian non-profit conservation groups on STEM methods, contaminant sampling, and reciprocal community research
- Collaborate with native and indigenous Hawaiian researchers to build capacity for rectifying contamination in water, soil, and sediment on Oahu, Maui, and Kauai
- Translate data and support community in efforts to bolster native and indigenous Hawaiian land rights and water concerns

#### **Duwamish Valley Research Coordination Network (2021 to present)**

- Sample Lower Duwamish Superfund site and upland locations for contaminants of concern (COCs) in soil, sediment, and water
- Create and assess aerial imagery collected by drone to identify areas with the Lower Duwamish that need further contaminant investigation and to facilitate community discussion on areas of concern in the superfund

- Facilitate connections between community partners and local researchers (in UW and across various organizations working in and near Lower Duwamish River Superfund)
- Host community science sampling and educational events to understand contaminant and flooding concerns related to climate change

### **Contaminants in Urban Community Gardens (2019 to present)**

- Sample collection from garden beds in community gardens and individual gardens throughout the Seattle Metro Region
- Samples analyzed for endocrine disrupting and carcinogenic contaminants such as glyphosate, heavy metals, PCBs, and petroleum degradates
- Survey collection and interviews to understand general practices in and between gardens to explore the following topics: concentration levels of contaminants in organic community gardens; social and physical practices contributing to or mitigating contaminants in community gardens; sources of community garden contaminants; whether environmental justice mandates affect garden practices; federal policies affecting garden contaminant concentrations

## **PREVIOUS RESEARCH PROJECTS**

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### **Resting Safe:** Houseless Community Control of Urban Space (2018 to 2023)

- Assess homeless populations' exposure to potentially harmful contaminants in contaminated homeless rest areas in two U.S. cities
- Analysis of GIS maps used to share with homeless community members in homeless resting sites
- Oversight of historical record searches for contaminant history at homeless area sites

### **Ph.D. Research:** Using Critical Physical Geography to Map the Unintended Consequences of Conservation Management Programs, Wasco County, OR (2013 to 2017)

- Analyzed landscape and herbicide spectral signature changes due to agricultural practices in primarily no-till agricultural landscapes and lands placed in Conservation Reserve Enhancement Program (CREP) contracts using spatial analysis. Utilize Geographic Information System (GIS) databases, Landsat TM remotely sensed imagery, LiDAR, and aerial imagery in the analyses.
- Performed field sampling to determine if herbicide concentrations indicative of agrochemical use in surface waters of a predominantly no-till landscape exceed screening criteria protective of human and ecological health. Sampled glyphosate/AMPA and chlorinated herbicides.
- Identified sources of sedimentation issues in county watersheds by field sampling and spatial analysis (using isotope cesium-137 soil and sediment collection from erosional source areas).
- Evaluated effectiveness of conservation programs for intended purposes, unintended consequences, and effects on soil ecosystem services and water quality.
- Conducted social surveys and interviews to determine past agricultural land use histories and socio-political drivers of conservation choices and agricultural systems.
- Collaborated with interagency technical team on assessing effectiveness of agricultural practices in watershed management advisory group.

### **M.S. Thesis:** Predictive mapping for the delineation of land type association units in the Fremont National Forest, OR (2006 to 2008)

- Mapped the geology, soils, and vegetation of the Fremont portion of the Fremont-Winema National Forests using field methods and Geographic Information System (GIS) technology in order to produce a digital Land Type Association (LTA) map for the U.S. Forest Service.
- Delineated landforms in study locations with Landsat TM remotely sensed imagery and ENVI software program.
- Used the decision tree analysis (DTA) program CART to create spreadsheets for the program See 5 for analysis.
- Produced digital soil maps by means of predictive mapping.

**Undergraduate Winter Study:** Mapping a Fringing Reef Complex Supervised by Prof. Rónadh Cox (2004) St. Johns, U.S.V.I.

- Transect sampling for species population in environmentally degraded reef
- Collected and compiled data on reef's condition in 2004 and compared with records of reef's condition in 1996
- Recorded extent of reef complex using Garmin GPS instruments

## **PUBLICATIONS**

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### **Accepted**

#### ***Peer Reviewed Articles***

**Malone, M.** Kagawa Viviani, A., Tugade, B., Chandler-'Iao, T., Richard, S. (2026) Collaboration to confront contamination: leveraging critical physical geography alliances for community-serving research across gardens, superfunds, and fire ravaged landscapes. *Journal of Geography in Higher Education*. <https://doi.org/10.1080/03098265.2026.2629470>

**Malone, M.**, Hamlin, S., Richard, S.I. (2023) Uprooting urban garden contamination. *Environmental Science & Policy* 142, 50–61. <https://doi.org/10.1016/j.envsci.2023.01.016>

**Malone, M.** and McClintock, N. (2022) A Critical Physical Geography of No-Till Agriculture: Linking Degraded Environmental Quality to Conservation Policies in an Oregon Watershed. *The Canadian Geographer*. <https://doi.org/10.1111/cag.12789>

**Malone M.** (2021) Seeking Justice, Eating Toxics: Overlooked Contaminants in Urban Community Gardens. *Agriculture and Human Values*. 165-184. <https://doi.org/10.1007/s10460-021-10236-8>

**Malone M.** (2020) Teaching Critical Physical Geography. *Journal of Geography in Higher Education*. 465-478. DOI: 10.1080/03098265.2020.1847051

Denham D., Rozance M.A., **Malone M.**, and Goodling G (2020) Sustaining future environmental educators: building critical interdisciplinary teaching capacity among graduate students. *Journal of Environmental Studies and Sciences*. 101-114. DOI: 10.1007/s13412-020-00611-y.

**Malone M.** and Foster E. (2019) A mixed-methods approach to determine how conservation management programs and techniques have affected herbicide use and distribution in the environment over time. *Science of the Total Environment* 660: 145–157. DOI: [10.1016/j.scitotenv.2018.12.266](https://doi.org/10.1016/j.scitotenv.2018.12.266).

**Malone M.** and Polyakov V. (2019) A physical and social analysis of how variations in no-till conservation practices lead to inaccurate sediment runoff estimations in agricultural watersheds. *Progress in Physical Geography: Earth and Environment*: 0309133319873115. 151-167. DOI: [10.1177/0309133319873115](https://doi.org/10.1177/0309133319873115).

### ***Book Chapters***

Engel-Di Mauro, S. and **Malone, M.** (2026) "Soil Justice: a Radical Black Marxist framework for addressing soil contamination", *The Language of Soil*. Bloomsbury Publishing.

**Malone, M.** (2025) "Using mixed methods to confront disparities in public health interventions in urban community gardens", in: Lave, R. and Lane, S. *The Field Guide of Mixed Methods Research*. 309-326. <https://doi.org/10.11647/obp.0418.16>.

Lave, R. and **Malone, M.** (2023) "Doing engaged scholarship: Why methods matter", in: Clifford, N., Cope, M., Gillespie, T., French, S. *Key Methods in Geography*. Fourth Addition. <https://doi.org/10.4135/9781036233679.n39>

Kelley, L.C., Clifford, K.R., Reisman, E., Lea, D., Matsler, M., Liebman, A., **Malone, M.** (2018). "Charting a Critical Physical Geography Path in Graduate School: Sites of Student Agency", in: Lave, R., Biermann, C, Lane, SN (Eds.), *The Palgrave Handbook of Critical Physical Geography*. Springer International Publishing, Cham, pp. 537–557. [https://doi.org/10.1007/978-3-319-71461-5\\_25](https://doi.org/10.1007/978-3-319-71461-5_25)

### **In review**

**Malone, M.**, Johnson, B. Richard, S., and Garcia, N. (2026). A comparison of metal concentrations in vegetables grown from urban community gardens and groceries in response to community research. *Journal of Environmental Management*.

**Malone, M.**, Richard, S., De Almeida, C., Johnson, B., Woelfle-Hazard, C. (2026). Overstudied and underserved: what community concerns reveal about overcoming exposure to contamination in climate change impacted areas near superfund sites. *Environmental Science and Policy*.

### **In preparation**

**Malone, M.** (2026). A Framework for reciprocal research in communities impacted by contamination. *Environmental Science and Policy*.

**Malone, M.** (2026). Strategies to overcome harm: a need for revision of risk factors in contaminated spaces in marginalized communities. *International Journal of Environmental Research and Public Health*.

**Malone, M.** (2026). Glyphosate in the garden: Who's reining in what's raining down on us? *Bioscience*.

### **Dissertations/Theses**

**Malone M.** (2017) Using Critical Physical Geography to Map the Unintended Consequences of Conservation Management Programs. Dissertations and Theses. <https://doi.org/10.15760/etd.3418>

**Malone, M.** (2008) Predictive mapping for the delineation of landtype association units in the Fremont National Forest, Oregon. *Oregon State University*.  
[http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/8909/malone\\_melanie\\_thesis.pdf?sequence=1](http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/8909/malone_melanie_thesis.pdf?sequence=1)

## **SELECTED TECHNICAL REPORTS**

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**Malone, M.** Soil Investigation. 2013. "North Fork Wetland Enhancement Project Clackamas County, Oregon". URS. Prepared for Portland General Electric and Oregon Department of Environmental Quality

Weatherby, D. and **M. Malone**. 2012. "Phase II Environmental Site Assessment for Fred's Marina Property". URS. Prepared for Portland Harbor Holdings III, LLC and Oregon Department of Environmental Quality

**Malone, M.** and D. Weatherby. 2011. "Final Phase I Environmental Site Assessment. Alder Creek Lumber Mill, Portland, Oregon". URS. Prepared for Portland Harbor Holdings LLC and Oregon Department of Environmental Quality

Weatherby, D. and **M. Malone**. 2012. "Focused Feasibility Study: Former Gun Club 88233 Greenhill Road, Eugene, Oregon. ECSI #4842". URS. Prepared for Davidson Industries, Inc. and Oregon Department of Environmental Quality and Environmental Protection Agency.

**Malone, M.** and D. Weatherby 2010. "Results of Hydrology Assessment for Proposed China Mountain Wind Energy Project. URS. Prepared for RES America Development, Inc. and Bureau of Land Management (BLM")

Noller, J.S., **Malone, M.**, Peterman, W., Slevin, S., and Hash, S., 2009. "Map of Landtype Associations for the Fremont portion of the Fremont-Winema National Forest". 1:100,000 scale: US Forest Service

## **PRESENTATIONS**

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### **Invited Speaking Presentations**

Malone, M. Williams College. "Uprooting Garden Contamination". Williamstown, MA. October 2025.

Malone, M. University of Hawaii and Leeward Community College. Wai Community Matters. [Link](#) to presentation. Honolulu, HI. January 2025.

Malone, M. American Association of Geographers Annual 2024 Presidential Plenary speaker. April 2024. [Link](#) to presentation at 32:32. Honolulu, HI. April 2024.

Malone, M. Agency. Building Capacity for Tribal. Community, and Agency Research in Urban Watersheds. Cumulative Impacts Research Grantee Workshop. U.S. Environmental Protection. Research Triangle Park, NC. May 2024.

Malone, M., Johnson, B., De Almeida, Catherine. The Duwamish Valley Research Coordination Network: Building Capacity for Tribal. Community, and Agency Research in Urban Watersheds

- April 2024. 2024 Ecological Restoration Symposium Topics in Ecological Restoration University of Washington Botanic Gardens, Center for Urban Horticulture.
- Malone, M. "Protecting communities from contaminants in shared soils". Soil and Water Stewardship Program. Organized by Tilth Alliance. Seattle. June 2024
- Malone, M. "Uprooting Urban Garden Contamination". University of Vermont January 2022; Indiana University February 2022.
- Malone, M. "Risk and resistance: Forming collaborative and co-generative research strategies to mitigate contamination in community gardens". University of Washington College of Built Environment, Post-Pandemic Sustainabilities Symposium. Seattle, WA. May 2021 and at Suny New Paltz November 2022.
- Malone, M. NightSchool: Women in Science. Description [here](#) and youtube watch [NightSchool: Women in Science - YouTube](#) . California Academy of Sciences. March 2021.
- Malone, M. "Urban gardens and environmental injustices: collaborating with communities to address risks to gardeners". National Socio-Environmental Synthesis Center (SESYNC) Distinguished Scholars Seminar. October 2021.
- Malone M. "Seeking Justice, Eating Toxics: Overlooked Contaminants in Urban Community Gardens". University of Washington Environmental Geography Colloquium October 2020; University of Arizona Environmental Science Colloquium October 2020; University of Washington School of Marine and Environmental Affairs February 2021. Nutritional Sciences Program October 2022.
- Malone M. "Teaching Critical Physical Geography". Washington, D.C. April 2019 and New Orleans, LA. April 2018.
- Malone, M. "No-till, No Food?" Soil Not Oil Coalition. Portland, OR. June 2017.
- Malone, M. "A Critical Physical Geographical Analysis of Conservation Management Practices: Implications for Soil Quality, Water Quality, and Food Security". American Association of Geographers (AAG) Boston, MA. April 2017.
- Malone, M. "A Critical Physical Geographical Analysis of Soil Quality in an Agricultural Setting". The Association of Pacific Coast Geographers (APCG). Portland, OR. October 2016.
- Malone, M. "Mapping the Unintended Consequences of No-Till Agriculture: Changes in Vegetation Over Time from Increased Herbicide Drift in Wasco County, Oregon". American Association of Geographers (AAG) San Francisco, CA. March 2016.
- Malone, M. "Give and Take: A Social and Biophysical History of Youngs Bay, Oregon". American Association of Geographers (AAG) Chicago, IL. April 2015.
- Malone, M. "Predictive Mapping and Landtype Associations in the Fremont National Forest". Keynote Student Speaker at Oregon Society of Soil Scientist Meeting. Boise, ID. January 2008.

### **Poster Presentations**

Malone, M. "Mapping the Unintended Consequences of No-Till Agriculture: Changes in Vegetation Over Time from Increased Herbicide Drift in Wasco County, Oregon". Portland State University 4th Annual Student Research Symposium. Portland, OR. May 2016.

Malone, M.R., and Noller, J.S., 2008, "Digital Soil Mapping in the Fremont National Forest of South-Central Oregon". Joint Meeting GSA-ASA, Houston, TX. 2008.

Malone, M. "Predictive Mapping in the Fremont National Forest, Oregon". Western Society of Soil Science. Boise, ID. June 2007.

### **Panel Sessions**

"Exposure, Toxicity, and Resisting Structural Conditions". Study & Struggle UW Bothell Labor Studies Colloquium sponsored by the Harry Bridges Center for Labor Studies and by the School of Interdisciplinary Arts & Sciences. February 2026.

"Environmental Justice and Adaptive Leadership". Organized by Headwater People Consulting and Rooted in Vibrant Communities. Seattle, WA. June 2023.

"Diverse Women in STEM". Young Women Empowered.  
<https://youngwomenempowered.org/event/stem-day/>. Seattle, WA. February 2023.

### **Panel Sessions as Organizer and Chair**

Confronting structures of power in biophysical research. American Association of Geographers (AAG). Seattle, WA. April 2021.

### **Facilitated Collaborative Community Workshops between Universities**

Wai Community Matters Workshop. Melanie Malone and Aurora Kagawa-Viviani. Leeward Community College and University of Hawaii. Honolulu, HI. January 2025.

Reciprocal Community Workshop on Contamination, Superfunds, and Land Access  
Duwamish Valley Research Coordination Lab, Malone, Lab, and University of Hawaii with Aurora Kagawa-Viviani Lab. Seattle, WA. July 2024.

### **Facilitated Academic Workshops**

Critical Physical Geography Dissertation Workshop. Primary host for workshop of postdoctoral scholars and PhD students working on dissertations and manuscripts in CPG literature. 2020.

### **Online Resources Featuring my Research**

SESYNC Sustainable Agriculture: Community Gardens – Justice, Safety, and Climate Solutions. See "Urban Gardens and Environmental Injustices" <https://www.sesync.org/resources/sustainable-agriculture-community-gardens-justice-safety-and-climate-solutions>

Contributions to [City of Seattle Food Action Plan](#).

### **Documentaries Featuring my Expertise and Research**

The Waste Stream. 2025. <https://youtu.be/S2XOeCc52Go>

## **Other Links to Stories and Videos about my Research**

- AAG President's Column. A Timely Conversation on Reciprocal Scholarship <https://www.aag.org/at-aag-2024-a-timely-conversation-on-reciprocal-scholarship/?zs=MIPMk1&zl=uS1U9>
- Partnering in field research. <https://www.uwb.edu/report-to-the-community/faculty-spotlight/#partnering-in-field-research>
- UW News Today, Video: scientist tests soil for hidden contaminants in community gardens: <https://www.washington.edu/news/tag/melanie-malone/>
- Melanie Malone and Young Women Empowered (Partnering for Impact Series- IAS Collaborations): <https://www.youtube.com/watch?v=tGpgtejAyfA>
- Night School, Women in Science: [NightSchool: Women in Science - YouTube](#)
- Supporting Urban Community Gardening: <https://www.uwb.edu/news/april-2020/urban-community-gardens>
- Taking contamination out of community gardens: <https://www.uwb.edu/news/november-2020/contaminated-community-gardens>
- Urban@ UW Urban Scholar Highlight: <https://urban.uw.edu/news/urban-scholar-highlight-melanie-malone/>
- [Advancements with Ted Danson](#). Segment on Agroecology. See portion starting at minute 3:12.

## **Research Featured on UW Bothell Campus**

Board of Regents research and teaching highlight. March 2023.

## **SERVICE**

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### **Advisory Committees**

- American Association of Geographers (AAG) Public Engaged Scholarship Taskforce (2022 to 2025)
- Sustainable Seattle (S2) Board of Directors (2022 to 2023)
- IAS I-DISCO Committee (2019 to 2023)
- Earthlab Application Review Team (2020 to 2021)
- St. Edward State Park Advisory Committee (2018 to 2020)
- Black Geographies Specialty Group Committee on Supporting Physical Geographers and GIS Practitioners (2018 to 2021)
- Doris Duke Conservation Scholars Program Review Team (2019)
- UW Bothell Field Education Learning Community (2018 to 2019)
- FifteenMile Watershed Coordination Group (2013 to 2019)

### **UW Office of the President Nominated Council**

- UW Population Health Initiative Executive Council (2026 to present)

### **IAS Curricular Area Working Groups (CAWGS)**

- Society, Technology, and Society (STS) CAWG (2024 to present)
- Earth System Science (ESS) CAWG (2019 to present)
- Environmental Studies (ES) CAWG (2018 to 2019)
- Conservation and Restoration Science (CRS) CAWG (2019 to present)
- CRS/ES CAWG (2023 to present)
- Affiliate faculty for the Master of Arts in Policy Studies (MAPS) CAWG (2018 to 2023)

### **Student Advising (UW Campuses)**

- Vedika Bhat (MPH) (2025 to present)
- Kristina Chu (Master of Social Work) (2022 to 2024), Bullitt Foundation Award Winner (2023 to 2024)
- Stephanie Turner (MPH, Nutritional Sciences & Dietetic Intern) (Winter 2024)
- Aedan Azeka (Biology undergraduate student) (2023 to 2024)
- Jessica Isutzu (IAS undergraduate student) (2023 to 2024)
- Amir Sheikh (PhD candidate, Anthropology) (2023 to 2024)
- Roland Schoeneman (IAS undergraduate student) (2023 to 2024)
- Sylvia Gholson (IAS undergraduate student) (2023 to 2024)
- Samuel Sachs (MLA student) (2023 to 2025, co-advised)
- Harkiran Daind (IAS undergraduate student) (2023 to 2025)
- Zoe Gish (SMEA MS student) (2023 to 2024, co-advised)
- Natalie Weiss (MLA student) (2023 to 2024, co-advised)
- Megan Williams (IAS undergraduate student) (2023 to 2024)
- Oscar Joya (Food Systems and Nutrition undergraduate student) (2023 to 2024)
- Wes Carrasco (PhD student, Geography) (2023, co-advised)
- Olivia Orosco (PhD candidate, Geography) (2022 to present, co-advised)
- Lauren Schwarz (GIS Peer Facilitator, Winter 2023)
- Cynthia Petraccaro (Earth Systems Science Capstone) (2021 to 2022)
- Manda Pelly (MAPS Graduate Program (2021-2022)
- Sydney Steurer (IAS Independent Study 2021)
- Alondra Mendez (IAS Independent Study 2021)
- Daelen Gates (GIS Peer Facilitator 2021 Co-mentor) and (Independent Study 2021)
- Ammara Touch (UW Independent Study 2020-2021/ Doris Duke Conservation Scholar)
- Emily Gilroy (IAS Independent Study 2020; MS Jackson School student; 2022)
- Simon Richard (Independent Study 2020; supervised as alumni researcher 2020- present)
- Alex Wachter 2020 (IAS Interdisciplinary Scholar 2020)
- Olivia Wright (MAPS Graduate Program 2019)
- Jade Mitchell (IAS Independent study 2019)
- Ginny Liu (IAS Independent study 2019)

### **Doris Duke Conservation Student Advising**

- Anisa Lopez Ruiz
- Nell Thompson
- Isabella Chung
- Lupe Estrada
- Bennet Walkes
- Kaytlen Cruz
- Sierra Hurtado

### **Associate Editor for Academic Journals**

- Contaminants, Environment and Society (2026 to present)

### **Reviewer for Journals**

- Science of the Total Environment
- Environmental Pollution

- Progress in Physical Geography
- Agriculture and Human Values
- Journal of Higher Education Outreach and Engagement
- Transactions of the Institute of British Geographers
- Guest editor for Capitalism Nature Socialism
- Journal of Geophysical Research – Biogeosciences
- Environmental and Sustainability Indicators

## **GRANTS AWARDED**

- EPA Science to Achieve Results (STAR) Climate Change and Environmental Justice (PI) (\$1,267,559). (2022-2025)
- USDA Partnership for Climate-Smart Commodities National Funding Opportunity (Co-PI) (\$4,865,136) (2023-2028)
- Tier 3 UW 1 Grant: Scaling for Greater Impact Spring 2022 (PI) (\$200,000) (2022-2024)
- King County Department of Natural Resources and Parks. Funds to sample Wastewater Treatment Soils at Study Farm for CPG class. (PI) (\$55,000) (2022)
- Antipode Foundation Right to the Discipline Award (Co-PI) (\$14,100) (2021-2022)
- Living Landscape Incubator Grant (Bullitt Foundation and University of Washington) (PI) (\$18,750) (2021-2022)
- National Science Foundation (NSF) Advancing Informal Learning in STEM (AISL) (Co-PI) “RESTING SAFE: Collaborative Informal STEM Learning Between Researchers and Homeless Communities” (\$400,000) (2020-2023)
- University of Washington COVID-19 Population Health Initiative Equity Research Grant (PI) (\$20,000) (2020-2021)
- Urban@UW Research Spark Grant (Co-PI) (\$20,000) (2020-2021)
- St Edward Environmental Education and Research Center UWB investment Fund (Co-PI) (\$600,000) (2021-2024)
- University of Washington Royalty Research Fund (PI) (\$39,993) (2020-2021)
- Antipode Foundation Scholar-Activist Project Awards (Co-PI) (\$13,285) (2018-2019)
- BLM (OR/WA) Analysis and Monitoring of Cascade-Siskiyou National Monument Resources (PI) (\$225,000) (2017- 2022)

## **FELLOWSHIPS**

- Ecosystem Services for Urbanizing Regions (ESUR) National Science Foundation Integrative Graduate Education Research and Traineeship (NSF-IGERT) Fellowship (\$88,000) (2013-2017)
- Environmental Internship Fellow from Williams College Center for Environmental Studies (\$6,000) (2003 and 2004)

## **COLLABORATIVE RESEARCH FUNDS AWARDED IN SUPPORT OF DISSERTATION RESEARCH**

- Oregon Department of Agriculture. Salem, OR. Herbicide Laboratory Analysis. (\$2,000) (2015)
- NSF IGERT Research Funds (\$20,000) (2016)
- Southwest Agricultural Research Station. Tucson, Arizona. Cesium-137 analysis (\$30,000) (2016-2017)
- U.S. Geological Society. Glyphosate Sample Analysis (\$12,420) (2016-2017)

## **AWARDS AND HONORS**

- UW Husky Sustainability Award (2023) (<https://sustainability.uw.edu/awards/2023>)

- Board of Regents showcasing of Critical Physical Geography advanced class (March 2023)
- UW Bothell Connected Learning Excellence Award 2021 (\$6,000)
- UW Bothell Interdisciplinary Arts & Sciences Fall 2020 Faculty Feature
- Association of Collegiate Planning (ACSP) Curriculum Innovation Award Winner (Co-PI) (\$7,000) (2020-2021)
- NSF IGERT Mentor 2016-2017 academic year
- URS Junior Professional Award for Outstanding Performance and Excellence (2010)
- Second Place Poster Presentation Award for "Predictive Mapping in the Fremont National Forest, Oregon" Awarded by AAAS, Pacific Division and WSSS (2007)

## **PROFESSIONAL ASSOCIATIONS AND AFFILIATIONS**

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- Association of American Geographers (AAG) (2014 to present)
- Black Geographies Specialty Group (2017 to 2021)
- Geographies of Food and Agriculture Specialty Group (2014 to present)
- Cultural and Political Ecologies Specialty Group (2014 to present)

## **CONTINUING PROFESSIONAL DEVELOPMENT**

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- I-DISCO Research Interest Group (RIG): Research Productivity and Life Balance among Junior Faculty (2019-2020)
- IAS Geography Writing Group (2019- present)

## **TEACHING EXPERIENCE**

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### **University of Washington Bothell as Assistant and Associate Professor**

(All classes at UWB taught annually or biannually with exception of HUM 597)

BEARTH 317 Soils and the Environment

BIS 342 Geographic Information Systems

BIS 307: Environmental Justice

BIS 344: Intermediate GIS

BIS 242: Environmental Geography

BIS 490/BIS 408: Critical Physical Geography

HUM 597: Special Microseminar "Abolition Geographies" with Ruth Wilson Gilmore and Megan Ybarra

### **The Oregon Extension as Assistant Professor**

ENVS 395: Environmental Studies and the Natural World (Fall 2017)

ENVS 396: Perspectives on the Relationship of Science and Society (Fall 2017)

BIO 397: Forest Management Lab Science for a Sustainable World (Fall 2017)

ENVS 398: The Natural Sciences on the Human Person (Fall 2017)

### **Portland State University as Instructor**

ESM 407/507: School of the Environment Speakers Seminar (Winter 2017)

ESM 399: Urban Rivers. Environmental Policy, Planning, and Activism (Spring 2016) (with Instructors Diana Denham and Mary Ann Rozance) <http://urbanrivers.weebly.com/>

### **Oregon State University as Teaching Assistant**

SOIL 205: Soil Science (Fall 2006; Fall 2007)

**Williams College as Teaching Assistant**  
GEOS 104: Oceanography (Spring 2005)

## **ENVIRONMENTAL CONSULTANT PROJECT SPECIFIC EXPERIENCE**

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Geologist, URS Corporation, 2008 to 2013:

### **Environmental Site Assessments (ESAs) / Remediation Projects**

#### **Assistant Project Manager/Field Manager (2012-2013)**

*Phase I and II EPA Environmental Assessments (ESAs), Confidential Client, Former Industrial Site in the Portland Harbor, OR*

- Performed Phase I for a confidential client in the Portland Harbor
- Researched historical information regarding environmental site history
- Performed Phase II field investigation activities including soil sample collection along stormwater flow pathways
- Conducted oversight of drilling activities and installation of monitoring wells on site
- Delineated nature and extent of solvent use at facility

#### **Soil Scientist (2011-2013)**

*Corvallis Loop Cultural Assessment, NW Natural, Corvallis, OR*

- Identified soil types in an area of archaeological interest along a proposed pipeline installment in the Willamette Valley of Oregon
- Assessed geomorphic surfaces in area of interest for likelihood of finding archaeological artifacts in the Willamette Valley and prepared technical report for involved clients
- Prepared figures of soils and geomorphic surfaces of interest for archaeologist field team in GIS systems (ArcMap)

#### **Assistant Project Manager /Field Manager (2010- 2013)**

*Phase I and II ESAs, Confidential Client, Former Industrial Site in the Portland Harbor, OR*

- Performed Phase I for a confidential client that proposes to restore a former industrial site to salmonid habitat as mitigation for Natural Resources Damages in the Portland Harbor
- Reviewed historic aerial photography from Army Corp of Engineers for assessment of previous site activities
- Conducted site investigation activities required by DEQ for upland sites in the harbor which included identification of potential sources of contamination and assessment of the nature and extent of contamination in the site media
- Characterized stormwater flow pathways on site and assessed whether stormwater pathways were significant sources of contamination to the harbor
- Performed Phase II field investigation activities including soil sample collection along stormwater flow pathways and excavation of test pits to define the magnitude and extent of contamination
- Conducted oversight of drilling activities and classification of soils according to USCS standard
- Prepared figures of site and sampling locations in GIS systems (ArcMap)

#### **Project Manager (2010-2013)**

*Geospatial Assessment, China Mountain Wind Turbine Generator Project, Idaho*

- Conducted spatial analysis using GIS to assess existing data representative of the current conditions of roads leading to planned wind turbine generators (ArcMap)
- Evaluated locations of proposed roads using spatial imagery and soil survey information

- Identified locations where road construction improvement and maintenance could interact with elements of the hydrologic system that are important to the flow and quantity of surface waters within the watersheds
- Prepared technical report detailing locations of concern for future field investigation

**Field Manager (2010 – 2013)**

*Shell Retail Groundwater Monitoring, Shell SOPS Corporation, Portland Metro Area*

- Field manager for groundwater sampling and monitoring at numerous Shell retail stations throughout the Portland Metropolitan area.
- Completed technical reports detailing site-specific groundwater flow and historical analytical results from monitoring wells
- Coordinated with Shell consultants and site contacts for information regarding specific retail stations
- Conducted oversight for installation of groundwater monitoring wells for sites needing further assessment

**Assistant Field Manager (2010)**

*Phase II ESA, City of Portland Bureau of Transportation, SW Moody Avenue Improvement Project, Portland, OR*

- Performed Field Manager duties for Phase II ESA soil and groundwater investigation activities on major road and light-rail construction project
- Conducted and managed collaboration between drilling contractors and light-rail construction employees
- Assessed locations of environmental concern in areas of road improvement and excavation
- Prepared figures of site and sampling locations in GIS systems (ArcMap)

**Field Manager (2010)**

*Phase II EPA Split Sampling Investigation, PGE Beaver Generating Plant, Clatskanie, OR*

- Conducted split-sampling techniques of soil and surface water with EPA Superfund Technical Assessment and Response Team (START)
- Analyzed collected data and spatial information to determine extent of impacted soil at site facility
- Prepared figures of site and sampling locations in GIS systems (ArcMap)

**Field Manager (2009-2013)**

*VCP Investigation, Former Lumber Mill and Gun Club RI for Davidson Industries, Eugene, OR*

- Managed field and technical duties for a soil and groundwater investigation of the subject property as required by DEQ VCP requirements
- Soil core logging and classification according to USCS standard
- Soil classification and survey according to NRCS standard
- Prepared technical remediation reports
- Delineated contamination, potential cap areas, and vegetation using GPS unit
- Prepared figures of site and sampling locations in GIS systems (ArcMap)

**Field Manager (2009)**

*Phase II ESA, TriMet Environmental Site Assessments, Portland, OR*

- Performed Phase II investigations of subject properties for Trimet prior to acquisition
- Soil core logging and classification according to USCS standard

- Prepared Phase II environmental site assessment report for client

### **Assistant Project Manager/ Field Manager (2008)**

*Soil and Groundwater Investigation, Leahy Property, Washington County, OR*

- Conducted a soil and groundwater investigation of the subject property to obtain information necessary to determine if Leahy Property qualified as farmland of statewide importance
- Soil classification and survey according to NRCS standard
- Conducted beneficial water use determination to determine if applicant's proposed use of the property would affect groundwater quantity

### **In-Water Sediment Investigations**

#### **Field Manager (2010- 2013)**

*Upland and In-Water Data Reports, Downtown Reach of the Willamette River, Confidential Client, Portland, OR*

- Conducted upland sampling of historic properties and in-water remedial investigation for the Downtown Reach of the Willamette River
- Prepared health and safety plans and provided technical assistance on data report for the Willamette River Sediment Remedial Investigation
- Coordinated with other field staff members and subcontractors (drillers, laboratories, and boat driver/diver contractors) for the upland and in-water field work
- Assisted with sediment sampling onboard the investigation vessel and classified soils according to USCS soil classification

### **Portland Harbor Superfund Projects**

#### **Assistant Project Manager (2010-2013)**

*Superfund Site Investigation, Confidential Client, Portland, OR*

- Author of EPA disclosure questionnaire for confidential client in the Portland Harbor
- Organized environmental records for Superfund site and created document structure to be incorporated into EPA disclosure questionnaire response
- Corresponded with local DEQ and EPA agencies for information regarding site history in addition to site operators and client attorneys for historical information regarding the site
- Prepared detailed environmental history of site, neighboring properties, and identified constituents of concern at site
- Identified areas of historic concern at site including USTs and reviewed historic UST registration and permitting
- Researched permitting history of facility including NPDES, RCRA, and stormwater permits

#### **Assistant Project Manager (2008-2009)**

*Superfund Site Investigation, Confidential Client, Portland, OR*

- Author of EPA 104e response submittal for confidential client
- Collected environmental records of site for client
- Prepared detailed environmental history of site and associated properties
- Documented client's spill history, environmental permitting, and waste disposal/production at the site

## **PREVIOUS EXPERIENCE**

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### **Student Research Assistant (2006- 2008)**

Oregon State University, Corvallis, OR

- Performed spatial analysis with ArcGIS 9.x, ENVI, Erdas Imagine CART sampling tool, and See 5.
- Created and manipulated spatial data layers, produced maps, analyzed data, and generated visually pleasing presentation materials.
- Collected data with GPS (Garmin) and Arcpad for field data collection processes.
- Compiled information on and implemented publicly available geographic data resources into research

### **Student Intern (2004)**

Lead Abatement Program, City Hall, Springfield, OH

- Identified Lead Based Paint Hazards
- Performed Lead Inspections/ Sampling Techniques in lead contaminated homes
- Participated in outreach programs targeted towards children
- Task lead for editing and researching information for department renewal grant

### **Student Intern (2004 & 2002)**

Environmental/Risk Management Department, City Hall, Springfield, OH

- Performed chemical inventory in all of the city's major places of employment
- Compiled information for chemical emergencies
- Updated and collected Material Safety Data Sheets (MSDS) for each city place of employment
- Compiled data sets on city environmental risks and safety issues, identified buildings of environmental concern
- Created presentation for city officials intended to improve safety of city employees

### **Trailside Manager (2003)**

Glen Helen Ecology Institute, Yellow Springs, OH

- Managed and maintained Glen Helen nature museum
- Led educational tours about the nature preserve to visiting groups
- Planned and performed educational activities for children
- Compiled data set of visitors to the museum
- Monitored Zikua ozone level station on the premises