

Grace Bulltail
University of Wisconsin-Madison
Nelson Institute for Environmental Studies

Education

Cornell University Biological and Environmental Engineering	Doctor of Philosophy Degree Conferral Date 12, 2017
Columbia University in the City of New York Earth Resources Engineering	Master of Science Degree Conferral Date 5, 2012
Montana Tech of the University of Montana Project Engineering Management	Master of Science Degree Conferral Date 12, 2010
Stanford University Civil Engineering	Bachelor of Science Degree Conferral Date 6, 2005

Professional Certification

State of California Board of Professional Engineers, Land Surveyors, and Geologists
Professional Civil Engineer License 2019 License No. 90126
Engineer-In-Training Certification 2006

Research Experience

Assistant Professor	University of Wisconsin-Madison	8/2019-Present
Cluster-hire faculty member in Native American environment, health, and community in the Nelson Institute for Environmental Studies with affiliate appointments in the departments of Biological Systems Engineering & Geography		
California Alliance Postdoctoral Fellow		
Stanford University	Earth System Science	11/2017–8/2019
Cornell Colman Diversity Fellow		
Cornell University	Biological and Environmental Engineering	8/2014-11/2017
<i>Dissertation: Natural Resource Development Impacts on Surface Water Quality Across Multi-Jurisdictional Watersheds within Montana, Wyoming and Crow Tribal Lands</i>		
NSF Integrative Graduate Education and Research Traineeship		
Columbia University	Civil Engineering & Engineering Mechanics	9/2012-8/2014
GEM Foundation Fellow		
Columbia University	Earth & Environmental Engineering	1/2009-5/2010

Graduate Writing Retreat Fellow University of Montana 6/2010-7/2010
Student to the Academic Professoriate for American Indians

Research Intern Argonne National Laboratory Argonne, IL 6/2009-8/2009
Department of Energy Tribal Internship Program

Teaching Experience

Assistant Professor University of Wisconsin- Madison 8/2019-Present
Developed and taught graduate and undergraduate courses on environmental justice and built environments

Trades Math Instructor Non-Traditional Employment for Women New York, NY 3/12–5/12
Instructed trades math course, developed course materials and course exam assessment

Engineering Instructor United Tribes Technical College Bismarck, ND 11/2010-12/2011
Develop engineering program curriculum, advise & mentor students, recruit & transition students to campus, teach courses with tribal community emphasis, direct student research projects, AISES chapter advisor

NSTI Faculty Fellow NASA Ames Research Center Mountain View, CA 5/2011-8/2011
Mentored tribal college student teams in conducting engineering research projects, developed curriculum materials to implement in tribal college engineering courses

Publications

Bulltail, G. Produced Water Management in the Arid West: Assessing Effectiveness of Management Regimes in Public Land and Tribal Waterways. Manuscript submitted for publication.

Bulltail, G. Produced Water Management in the Arid West: Evaluation of Permit Parameters to Protect Water Quality in Public Land and Tribal Waterways. Manuscript submitted for publication.

Patil A., Sarzaeim, P. and **G. Bulltail**. Hydrologic Storage Dynamics and Climate-Governance Interactions on Tribal Lands in Southeast Montana. Manuscript submitted for publication.

Sarzaeim, P. and **G. Bulltail** (2025). Evaluation of FAIR Principles in Indigenous Water-Climate-Environment (WCE) Data Repositories. *Data Science Journal*, 24: 31, pp. 1–16. DOI: <https://doi.org/10.5334/dsj-2025-031>

Bulltail, G. (2024) Water Resource Management and Land Tenure on Allotted and Tribal Lands. *Environmental Research Letters*. 2024 July 11; 19(7):074052-. doi: 10.1088/1748-9326/ad5574

Sullivan, M., Hedden-Nicely, D. and **G. Bulltail** (2024). Enhancing Water Protection on Tribal Lands. *Frontiers in Ecology and the Environment*. 2024 July 01. DOI: <https://doi.org/10.1002/fee.2751>

Bulltail, G. and M. T. Walter (2020). Impacts of Coal Resources Development on Surface Water Quality in a Multi-Jurisdictional Watershed in the Western United States. *Journal of Contemporary Water Research and Education (JCWRE)* Special Issue on “Water in the Native World”, 169: 79-91. doi:10.1111/j.1936-704X.2020.03333.x

Gervais, B., Voirin, C., Beatty, C., **Bulltail, G.**, Defrance, S., Dorame, B., Lackey, J., Lupe, C., Negrette, A., Robbins, N.C., Cowherd, S., Gutteriez, R., Royale, B., Swaney, R., Tso, K., Victor, M., Yazzie, K., Long, J. and S. Hoagland (2016). Natural Resource Higher Education: Barriers, Deficiencies and Opportunities From the Perspective of the Native American Student. *Journal of Forestry* Special Issue on Tribal Forest Management. doi:10.5849/jof.2016-065R1

Manuscripts in Preparation

Sarzaeim, P. and **G. Bulltail**. Spatiotemporal Quantitative Assessment of Methane Emissions on Tribal Lands. Manuscript in preparation.

Bulltail, G., Patil A., and P. Sarzaeim. Streamlining a Water Rights Model Framework: Consumptive Use and Reserved Tribal Water Rights. Manuscript in preparation.

Bulltail, G. and P. Sarzaeim. FAIR Principles Evaluation of Oil and Gas Facilities and Permitting on Tribal Lands. Manuscript in preparation.

Reports

Rouda, J., Brand, E., Ortiz, A., Hill, N., Prochnik, J., **Bulltail, G.**, Ledesma, I., Coochwyetewa, K., and D. Harper (2022). Power of Place-West Companion Report *Voices from the West: Findings from Interviews on Energy on Tribal Lands*. The Nature Conservancy.

Not One More: the Not Invisible Act Commission Final Report (2023). The Not Invisible Act Commission Act of 2019, Public Law 116-166.

Research Grants and Funding

Read Foundation 2024	<i>Tribal Energy Futures</i> (PI: Bulltail)	\$50,000
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Freshwater Collaborative of Wisconsin 2023	<i>From Field to Laboratory; Hands-on Techniques for Students in Water Sciences</i> (Co-PI: Bulltail)	\$71,829
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University of Wisconsin-Milwaukee School of Freshwater Sciences Center for Water Policy	Water Policy Scholar 2023-2024 (PI: Bulltail)	\$10,000
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Freshwater Collaborative of Wisconsin 2022	<i>From Field to Laboratory; Hands-on Techniques for Students in Water Sciences</i> (Co-PI: Bulltail)	\$70,009
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University of Wisconsin-Madison Office of Vice Chancellor for Research and Graduate Education & Nelson Institute 2021 \$200,000
Indigenous Environment & Science Working Group (PI: Bulltail)

University of Wisconsin-Madison Center for Culture, Humanities, and Environment 2021 \$5,000
Research Working Group in Navigating Justice (PI: Griffith, Bulltail)

Stanford Diversity Innovation Initiative Fund Graduate & Postdoctoral Support Grant 2019 \$3500 (PI: Bulltail, Chen)

Environmental Protection Agency Tribal ecoAmbassador United Tribes Technical College 2011-2012 (PI: Bulltail) \$20,000

EPA Environmental Justice Thriving Communities Grantmaking Program for Region 8
Data-driven Assessment of Oil & Gas Environmental Impacts on Tribal Lands
 Amount Requested: \$150,000 Submitted 3/2025 Program terminated prior to review.

EPA Environmental Justice Thriving Communities Grantmaking Program for Region 8
Streamlining a Resource Sovereignty Framework for Tribal Water Justice
 Amount Requested: \$150,000 Submitted 3/2025 Program terminated prior to review.

Professional Experience

Consulting Engineer	Three Affiliated Tribes	New Town, ND	8/2014–1/2015
Project Engineer	Crow Tribe Water Resources Dept.	Crow Agency, MT	5/2012–8/2012
Staff Engineer	Blueline Engineering	Billings, MT	11/2007-1/2009
Staff Engineer	Aquoneering	Billings, MT	8/2006-10/2007
Civil/Environmental Engineer	Earth Tech	San Jose, CA	10/2004-7/2005
Legislative Research Specialist	Crow Tribal Legislature	Crow Agency, MT	7/2003-9/2003
Survey Aid	Bureau of Indian Affairs Road Department	Billings, MT	8/2001-9/2001

Language Proficiencies

Latin	Crow Indian
Reading: Proficient	Reading: Proficient
Writing: Proficient	Writing: Proficient
	Speech: Proficient

Academic and/or Professional Honors, Scholarships & Fellowships

Outstanding Woman of Color Award, University of Wisconsin-Madison 2023-2024

Water Policy Scholar, University of Wisconsin-Milwaukee School of Freshwater Sciences
Center for Water Policy 2023-2024

California Alliance Postdoctoral Fellowship – Stanford University 2017-2019

Ford Foundation Postdoctoral Fellowship Alternate - 2019

American Indian Graduate Center, Graduate Student of the Month - November 2017

Cornell University American Indian and Indigenous Studies Program, Buffalo Spirit Award 2017

Alfred P. Sloan Foundation Minority PhD Scholar/Cornell Colman Diversity Fellowship –
Cornell University 2014-2017

National Science Foundation, Integrative Graduate Education and Research Traineeship Fellow,
Solving Urbanization Challenges by Design – Columbia University 2012-2014

GEM Consortium Fellowship National Consortium for Graduate Degrees for Minorities in
Engineering and Science, Inc. – Columbia University 2009-2010

Alfred P. Sloan Foundation Indigenous Graduate Partnership Scholar – Montana Tech at the
University of Montana 2008-2010

A Better Chance Scholar – St. Paul's School 1996-2000

Research Presentations

AGU Fall Meeting Oral Presentation Patil A., Sarzaeim, P. and G. Bulltail. Change In Storage
Analysis for Tribal Water Governance in Southeast Montana New Orleans, LA 12/2025

Alfred P. Sloan Scholars Mentoring Network Alumni Research Symposium
Institute for Teaching & Mentoring Atlanta, GA 10/2025

Enhancing Water Protection on Tribal Lands Society of Freshwater Science 5/2025

Water Policy Scholar Seminar University of Wisconsin-Milwaukee 4/2024

U.S. Indigenous Data Sovereignty & Governance Summit University of Arizona 4/2024

Social and Environmental Justice Lecture University of Wisconsin-Platteville 3/2024

Climate Justice Health Care Symposium UCLA David Geffen School of Medicine 4/2023

Hydrologic Science and Indigenous Voices Seminar

Consortium for the Advancement of Hydrologic Sciences, Inc. (CUAHSI)		6/2022
Water@UW-Madison Spring Symposium/Nelson Institute Earth Day		4/2022
Math + Science + X Seminar Series	University of Hawaii-West Oahu	4/2022
Her Purpose: Environmental Leadership	St. Paul's School	4/2022
Relational Futures: A Symposium for Indigenous Land, Water, and Environment Water Security and Relationality Panelist	University of Chicago	10/2021
Indigenous Water Quality Governance Symposium	University of Idaho	Fall 2021
Weston Roundtable Seminar	University of Wisconsin-Madison	4/2021
Earth Day 2021 Nelson Institute	University of Wisconsin-Madison	4/2021
Center for Culture, History, and Environment Colloquium "Environmental Research in Tribal Communities"	University of Wisconsin-Madison	2/2021
Dept. of Earth & Environmental Sciences Seminar	University of Minnesota-Twin Cities	2/2021
Native American Heritage Month Keynote Speaker	Purdue University	11/2020
Water Resources Engineering Group Seminar	University of Wisconsin- Madison	10/2020
Ecosystem Science and Sustainability Dept. Seminar	Colorado State University	9/2020
Wisconsin Institute for Discovery	Crossroads of Discovery	3/2020
American Indian Studies 2020 Colloquium Series	University of Wisconsin-Madison	2/2020
American Geophysical Union Fall 2018 Meeting, Washington D.C. "Produced Water Management in the Arid West: Assessing Effectiveness of Management Regimes and Impacts to Tribal Waterways" (Poster) Highlighted Abstract		12/2018
Water In the Native World NSF Workshop, Salish Kootenai College, Keynote Address		8/2018
Rochester Institute of Technology	Golisano Institute for Sustainability	9/2016
Montana Tech of the University of Montana	Public Lecture Series	3/2016
Building Future Faculty Program	North Carolina State University	4/2014
NSF IGERT, Solving Urbanization Challenges by Design Seminar, Columbia University		3/2013

United Negro College Fund Special Programs	2011 STEM Symposium	7/2011
Presentation of NSTI Faculty Fellowship Research		

Department of Energy and Department of Interior Tribal Internship Program	8/2009
Argonne National Laboratory	

Outreach & Education Conference Presentations

WiscProf: Future Faculty in Engineering Workshop	Keynote Speaker	5/2026
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Water Management and Climate Resilience: Applying Tribal and First Nation Nature-Based Solutions	Great Lakes and St. Lawrence Cities Initiative Annual Meeting	5/2025
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weSTEM University of Illinois at Urbana-Champaign GradSWE	Featured Speaker	2/2025
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American Geophysical Union Fall Meeting Indigenous Action Committee Town Hall	12/2024
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AISES National Conference 2024 Academic Advisory Council Career Panel	10/2024
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American Geophysical Union Fall Meeting Indigenous Action Committee Town Hall	12/2023
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SACNAS National Diversity in STEM Conference 2023	Featured Speaker	10/2023
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AISES National Conference 2023 Higher Education Committee Gathering	10/2023
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WiscProf: Future Faculty in Engineering Workshop	Keynote Speaker	5/2023
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American Geophysical Union Fall Meeting Town Hall	12/2021
“Reciprocity in AGU: The Beginnings of an Indigenous Action Committee”	

AISES National Conference 2019 “Indigenizing Academia”	10/2019
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First Annual Indigenous Resilience Event Keynote Speaker	Northeastern University	10/2019
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AISES Regional Conference	Keynote Speaker	Stanford University	4/2019
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Leadership

U.S. Department of the Interior & Department of Justice, Not Invisible Act Commissioner (NIAC) 2022-2023

American Indian Science and Engineering Society Board of Directors, Treasurer 2017-2023

American Indian Science and Engineering Society Northern California Professional Member, Chapter President 2018-2019

Service

Stanford American Indian Organization, Stanford Powwow Director 2003-2004

United Tribes Technical College American Indian Science & Engineering Society (AISES)
Chapter Advisor 2011

United Tribes Technical College Staff Cultural Committee 2010-2011

National Academy of Engineering and Tribal Colleges and Universities Working Group Member
2011

American Indian Science and Engineering Society, Columbia University Graduate Student
Group, Founder & President, 2012-2014

Diversity in Graduate Engineering, Columbia University, Founding Member 2012-2014

American Indian Community House, Inc. of NYC Board of Directors Member 2012-2015

Stanford Native American Alumni Association, NY Regional Representative 2012-2017

Indigenous Graduate Students Association, Cornell University, President 2015-2016

Society for Advancement of Chicanos and Native Americans in Science, Cornell University,
Founding Member 2016-2017

Winds of Change Magazine, Editorial Board Member 2016-2020

The 2018 March for Science Summit, Advisory Team Member 2018

Stanford Native American Graduate Students, Stanford University, Member 2017-2019

School of Earth, Energy, & Environmental Sciences Postdoctoral Advisory Council, Stanford
University, 2018-2019

Stanford Native American Alumni Association, Bay Area Regional Representative 2017-2019

Indigenous Lands Expropriation Education Working Group at UW-Madison 2021-2023

Mellon Just Futures Project, Humanities Education for Anti-Racism Literacy in the Sciences and
Medicine (HEAL) Advisory Board Member 2021-2024

Native Nations at UW Curricular Infusion and Indigenization Subcommittee 2021-2024

American Geophysical Union, Indigenous Action Committee 2020-Present

Society for Freshwater Science, Council of Underrepresented Voices 2021-Present

EPA Environmental Justice Thriving Communities Region 8 Mountains and Plains Thriving Communities Collaborative Tribal Advisory Council 2025

Missing and Murdered Indigenous Relatives Working Group at UW-Madison 2025-2026

Reviewer

Alfred P. Sloan Foundation (2)

Chan Zuckerberg Initiative (2)

National Science Foundation (2)

NOAA NIDIS

Water Resources Research

Teaching and Mentoring

ENVIR ST 900 Infrastructure and Indigenous Water Resources Spring 2024, Fall 2021

ENVIR ST 600 Major Capstone: Environmental Justice in Indigenous Communities

Fall 2024, 2023 Spring 2023, 2022, 2021

ENVIR ST 401 From Field to Laboratory; Hands-on Techniques for Students in Water Sciences
Summer 2024, 2023

ENVIR ST/ILS 126 Principles of Environmental Science Spring 2026, Spring 2025

Graduate Students Advised

Anu Patil Ph.D. Environment and Resources, Graduate Advisor

Dylan Jennings (Ojibwe) Ph.D. Environment and Resources, Graduate Committee Member

Cheyenne Koran (Menominee) Ph.D. Geoscience, Graduate Committee Member

Thea Showalter M.S. Water Resources Management, Graduate Committee Member

Postdoctoral Scholars

Dr. Parisa Sarzaeim, Postdoctoral Advisor (2022-2025)

Former Students

Nicole Muschinske M.S. Environment and Resources, Graduate Advisor

Sarah Dance (Lumbee) M.S. Civil Engineering, Graduate Committee Member

Caroline Griffith Ph.D. Geography, Graduate Committee Member

Faculty Principal Investigator Mentor, Indigenous Environment & Science Working Group

Faculty Principal Investigator Mentor, Nelson Institute Center for Culture, History, and

Environment Research Working Group on Navigating Justice

Faculty Mentor, Freshwater@UW SROP

Professional Organization Memberships

American Indian Science and Engineering Society – Board of Directors Member, Sequoyah
Member, Northern California AISES Professional Chapter Founding Member

Society for the Advancement of Chicanos and Native Americans in Science – Member

American Geophysical Union – Member

Society for Freshwater Science - Member

Media

Democracy Now! “Justice for Kaysera: Native Teen’s Mysterious Death Highlights Epidemic of Murdered Indigenous Women” 10/10/2019

Native America Calling Radio Show “Improving Access to Clean Drinking Water” 4/14/2020

1A National Public Radio “The Search For Missing And Murdered Indigenous Women”

8/25/2020

National Indigenous Women’s Resource Center Restoration Magazine “Who Speaks for Us?” January 2022

The Morning Show Wisconsin Public Radio “The Not Invisible Act Commission” 5/31/2022

Native America Calling Radio Show “The expense people don’t like to think about” 8/7/2024

Missing & Murdered Indigenous Women and Girls (MMIWG) Advocacy

Waking Women’s Healing Institute Inc. Board of Directors Member 2021-Present

National Indigenous Women’s Resource Center, Missing and Murdered Indigenous Women Family Advisory Working Group Member 2021-2026

U.S. DOJ & DOI Not Invisible Act Commission Subcommittee Co-chair Presiding over Field Hearings in Flagstaff, AZ 5/2023, Minneapolis, MN 6/2023, & Billings, MT 7/2023

Selected Invited Outreach Presentations

National Indigenous Women’s Resource Center, National Roundtable on Integrated Approaches to Domestic Violence, MMIWR, and Maternal Mortality in Indian Country 4/2026

National Portrait Gallery, American Women’s History Initiative Study Day for Portrait of an Indigenous Womxn [Removed], Panelist 11/2023

National Indigenous Women’s Resource Center, MMIW National Week of Action 2021-2026

White House Listening Session: Murdered and Missing Indigenous Persons 3/31/2021

Artist Talk & Tour, Emerson Gallery: We Are Still Here and This Is Our Story 2/2/2021

IBM, MMIWG Panel Native American Heritage Month 11/19/20

Democratic National Convention, MMIWG Panelist moderated by Rep. Deb Haaland 8/20/2020