

BEATRICE L GORDON, Ph.D.

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SUMMARY

Interdisciplinary hydrologist with 12 years of professional experience in private organizations, academia, and non-profits. Combines deep technical knowledge of hydrology with a passion for science-based policy and science communication. Proven record of designing and publishing interdisciplinary water research on climate change adaptation and resilience. Specialization in mountain hydrology and agricultural water management. Independent self-starter who thrives working on inclusive and collaborative teams that uplift all members.

EDUCATION

- 2022 **Ph.D. Hydrogeology, University of Nevada Reno, Reno, NV**
Graduate Dean's Fellowship—1 of 5 for all incoming graduate students, Babbitt Fellow
A socio-hydrologic assessment of mountain water supply vulnerability to changing snowmelt, Dr. Adrian Harpold
- 2016 **M.S. Water Resources, University of Wyoming, Laramie, WY**
Graduate Merit Fellow, Mary Mead Fellowship for Women in Agriculture, Outstanding MS
Determination of evapotranspiration and return flow in a semi-arid agricultural system, Dr. Scott Miller
- 2010 **B.A. Environmental History & English Literature, Stanford University, Stanford, CA**
Phi Beta Kappa, NCAA Division 1 Athlete, Undergraduate Fellow Stanford Humanities Center

EXPERIENCE

- 2023-** **Post-Doctoral Scholar**, Desert Research Institute Division of Hydrologic Sciences
- Lead design of decision-making support tool for climate adaptation in agriculture
 - Economic analysis of demand management in irrigated agriculture
 - Liaise between hydrology subgroup and applied economics on a \$5 million USDA grant
- 2019-2022** **PhD Candidate**, Nevada Mountain Ecohydrology Lab
- Published on snow and streamflow using large-scale models and gridded data
 - Published on statistical tool for uncertainty assessment using large-scale models and gridded data, produced new data product
 - Designed resilience assessment for adaption in irrigated agriculture in western US
- 2016-2019** **Research Analyst**, Stanford University Woods Institute for the Environment
- Performed legal research on environmental water transactions
 - Conducted technical, economic, and legal research on groundwater management in CA
 - Co-developed and implemented an assessment of ecosystem services in the western US
 - Published financial risk assessment of green infrastructure in major global cities
- 2013-2016** **Research Assistant**, Wyoming Center for Environmental Hydrology and Geophysics
- Published 3-year study on agricultural return flows using hydrologic and geophysical data
 - Oversaw communication about research and results with diverse stakeholders
 - Designed, executed, and managed data gathering and analysis with multiple partners
 - Led and mentored a team of technicians in a remote location over multiple field seasons
- 2011-2013** **Junior Environmental Specialist**, Apache Corporation
- Co-led corporate sustainability report, designed water use reporting for investors and shareholders
 - Led corporate environmental affairs in Argentina, Gulf Coast, Permian Basin, and Egypt
 - Coordinated environmental reporting for OPIC and MIGA

- 2011, 2013 Wildland Firefighter**, Bighorn National Forest
- Member of Blacktooth Fire Use Module (2013)
 - Member of Engine Crew (2011)

LEADERSHIP & SERVICE

Board of Directors: Greater Yellowstone Coalition • Plank Stewardship Initiative

Reviewer Services: Water Resources Research • Journal of Environmental Management • Science of the Total Environment • Agricultural Water Management • Journal of Sustainable Finance and Investment

AWARDS & AFFILIATION

- 2022** Outstanding Student Paper, **University of Nevada Reno**, Graduate Program in Hydrologic Sciences
- 2021-2022** Babbitt Fellow, Lincoln Institute of Land Policy, (\$10,000)
- 2020-2021** Jerry & Betty Wilson Scholarship, **University of Nevada Reno** (\$4,000)
- 2020** Outstanding PhD Student, **University of Nevada Reno**, GPHS
- 2021** 3 Minute Thesis (3MT) Competition, 3rd place, **University of Nevada Reno**, (\$750)
- 2019** Graduate Dean's Fellow, **University of Nevada Reno** (\$40,000) *First awardee for Graduate Program in Hydrologic Sciences
- 2016** Outstanding MS Student, **University of Wyoming**, College of Agriculture
- 2015-2016** Mary Mead Fellowship for Women in Agriculture, **University of Wyoming**, (\$2,000)
- 2013-2015** Graduate Merit Fellowship, **University of Wyoming**, (\$13,000)
- 2010** Phi Beta Kappa (Top 10% of graduating class), **Stanford University**
- 2010** *Finalist*, Hoefler Prize for Excellence in Undergraduate Writing, **Stanford University**
- 2010** *Awardee*, Bill Lane Center for the American West, **Stanford University** (\$7,000)
- 2009-2010** Undergraduate Fellowship, **Stanford Humanities Center**
- 2009-2010** Athletic Scholarship, **Stanford University**, Athletics Department
- 2007-08, 2010** Student-Athlete Award, **Stanford University**, Athletics Department
- 2007-08, 2010** Division 1 Athlete, **National Collegiate Athletic Association**

SKILLS & TRAINING

- Computational modeling & climate data processing
- Big data management & organization
- Hydrological field instrumentation
- Programming in Matlab, R, Python
- Spatial analysis in Google Earth Engine, ArcGIS
- Interdisciplinary research
- Stakeholder outreach & communication
- Public & investor relations
- Scientific communication
- Data visualization

COURSEWORK

Advanced Natural Resources Economics • Advanced Surface Water Hydrology • Bayesian Hierarchical Modeling • Differential Equations • Linear Algebra • Elements of Research Computing • Engineering & Environmental Geophysics • Geostatistics • Groundwater Hydraulics • Hydrogeophysics • Hydrologic Fluid Dynamics • Modeling Flow & Contaminant Transport • Soil Physics • Spatial Hydrology • Water Quality Analysis • Wildland Hydrology • Geographic Information Systems in Water Resources • Global Change, Crop Production & Impacts on Hydrology • Hydrology & Policy: Actions, Implications, and Solutions

RELEVANT TRAINING

Rosgen Stream Restoration • Multiple National Wildfire Coordinating Group trainings • WRF-Hydro • SWAT

PEER-REVIEWED JOURNAL ARTICLES

- In Prep* [9] **Gordon, B. L.**, Boisrame, G. F., Ajami, N.K., Carroll, R. W., Leonard, B., Albano, C.M., Mizukami, N., Koebele, E.A., Andrade-Rodriguez, M.A., & Harpold, A. A. Water Management Can Reduce Agricultural Vulnerability to Decreasing Snowpack.
- Submitted* [8] **Gordon, B. L.**, Koebele, E.A., Rego, J.J., Harpold, A. A., & Ajami, N.K. Improving Water Vulnerability Assessments for Rapidly Changing Hydrologic and Social Conditions
- 2022** [7] **Gordon, B. L.**, Brooks, P. D., Krogh, S. A., Boisrame, G. F., Carroll, R. W., McNamara, J. P., & Harpold, A. A. (2022). Why does snowmelt-driven streamflow response to warming vary? A data-driven review and predictive framework. *Environmental Research Letters*.
- 2022** [6] **Gordon, B. L.**, Crow, W. T., Konings, A. G., Dralle, D. N., & Harpold, A. A. (2022). Can We Use the Water Budget to Infer Upland Catchment Behavior? The Role of Data Set Error Estimation and Interbasin Groundwater Flow. *Water Resources Research*, 58(9)
- 2021** [5] Krogh, S. A., Scaff, L., Sterle, G., Kirchner, J., **Gordon, B.**, Harpold, A. (2021). Diel streamflow cycles suggest more sensitive snowmelt-driven streamflow to climate change than land surface modeling. *Hydrology and Earth System Sciences Discussions*, 1-41.
- 2021** [4] Claes, N., Paige, G. B., **Gordon, B. L.**, Parsekian, A. D., Miller, S. N. (2021). Hydrologic modeling of reach scale fluxes from flood irrigated fields. *Journal of Hydrology*, 598, 126254.
- 2020** [3] **Gordon, B.L.**, Paige, G.B., Miller, S.N., Claes, N., Parsekian, A.D. (2020). Field scale quantification indicates potential for variability in return flows from flood irrigation in the high-altitude western US. *Agricultural water management*, 232, 106062.
- 2019** [2] **Gordon, B. L.**, Kowal, V., Khadka, A., Chaplin-Kramer, R., Roath, R., & Bryant, B. P. (2019). Existing accessible modeling tools offer limited support to evaluation of impact investment in rangeland ecosystem services. *Frontiers in Sustainable Food Systems*, 3, 77.
- 2018** [1] **Gordon, B. L.**, Quesnel, K. J., Abs, R., & Ajami, N. K. (2018). A case-study based framework for assessing the multi-sector performance of green infrastructure. *Journal of environmental management*, 223, 371-384.

REPORTS & BRIEFS FOR POLICYMAKERS

- 2018** Conrad, C., **Gordon, B.L.**, Moran, T.A., Blomquist, W., Martinez, J., Szeptykci, L., (2018) California's new landscape for groundwater governance
- 2018** Szeptycki, L., Pilz, D., O'Connor, R., & **Gordon, B.** (2018). Environmental Water Transactions in the Colorado River Basin: A Closer Look.

POPULAR MEDIA & BLOGS

- 2017** **Gordon, B.** "Why We Can't Just Suck It Up: The Challenges of Groundwater Recharge in California." *Water in the West Insight blog*.
- 2017** **Gordon, B.** "Is CA's Drought Over? We're Asking the Wrong Question." *Water in the West Insight blog*.