ELAINE QUAY HINRICHS

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EDUCATION

Oberlin College, Oberlin, OH | BA May 2016
Major: Environmental Studies (High Honors) | Minor: Physics | Major GPA: 3.95 | Cumulative GPA: 3.83 | Phi Beta Kappa

RELEVANT EXPERIENCE

Summer Scholar, The Network for Sustainable Climate Risk Management (SCRiM), State College, PA, May – July 2016.
Advisor: Kenneth Davis, Professor of Meteorology at Penn State University

- Quantifying and differentiating urban nonpoint source from point source methane emissions using tower-based and aircraft measurements from the Indianapolis Flux Experiment (INFLUX) and atmospheric budget methods.

Board Member, Oberlin College Green EDGE Fund, Oberlin, OH, February 2014 – May 2016

- Collaborated with fellow student board members in meetings twice a week to manage a >$200,000 fund designated for local efficiency loans, sustainability grants, and Carbon Management Fund grants
- Assisted in development of project proposals and implementation of funded projects, worked closely with college departments/offices and community stakeholders to optimize projects
- Evaluated project proposals considering environmental and social benefits as well as return on investment or carbon sequestration value where applicable
- Served as Treasurer (2015-2016), Website/Email Manager (2014-2015), Vice Chair (Spring 2014), and editor and primary author of 2013-2014 Annual Report

Research Intern, Sustainable Dairy Coordinated Agricultural Project, State College, PA, Summer 2015. Advisors: Curtis Dell, Soil Scientist at USDA Agricultural Research Service – Pasture Systems and Watershed Management Research Unit, and Heather Karsten, Professor of Crop Production/Ecology at Penn State University

- Investigated effects of various manure/fertilizer application methods and previous crop treatments on soil nitrogen and emissions of a greenhouse gas, N_2O
- Took bi-weekly N_2O flux, soil moisture, and soil temperature measurements. Sampled, ground, and performed KCL extractions on soil to determine nitrate and ammonium concentrations. Conducted a 28-day aerobic soil incubation experiment to determine net nitrogen mineralization during that time
- Analyzed and interpreted data; findings reported through my Oberlin College senior honors thesis

Water Quality Modeling Intern, Western Reserve Land Conservancy, Moreland Hills & Oberlin, OH, January 2015.
Supervisor: George Warnock, Stewardship Associate & Conservation Project Manager

- Downloaded, organized, and validated data on land use area, agricultural animals, septic systems, and soil type for 388 subwatersheds in the Land Conservancy's 21 service counties in northern Ohio
- For 106 priority subwatersheds, used US EPA's Spreadsheet Tool for Estimating Pollutant Loads (STEPL) to model each subwatershed's sediment, nitrogen, phosphorus, and 5-day biological oxygen demand loads

Research Assistant, Sustainable Dairy Cropping Systems Research Project at Penn State University, State College, PA, Summer 2014. Advisor: Heather Karsten, Professor of Crop Production/Ecology

- Helped with field and laboratory research on crop and soil sampling and analysis; took N_2O flux measurements; assembled, entered, and checked data; prepared informational material for field day
- Modeled data from a previous year (2012) using the Farm Energy Analysis Tool, developed and delivered an analysis of energy use and greenhouse gas emissions for the different cropping systems

Intern, Carbon Management Fund at The Oberlin Project, Oberlin, OH, January 2014. Supervisor: Heather Adelman, Assistant Director of The Oberlin Project

- Assisted with the design and implementation of a local carbon-offset program for the College and City
- Investigated greenhouse gas mitigation practices; compiled information sheets for potential project owners on eligible practices and their co-benefits, the application process, and utilization of land conservation programs

SKILLS and ACTIVITIES

Computer: Microsoft Office Suite, ArcGIS, Python, MATLAB, R, Mathematica, Database research and spreadsheet modeling
Field research methods, data analysis, and modeling of soil, agroecosystems, aquatic and forest ecosystems
Athletics: 4 years Oberlin College Cross Country (co-captain 2015) and Track and Field (co-captain 2016)