

## U-M School for Environment and Sustainability Master's Project Overview

**Project Proposals due November 30, 2018 to [seas-projects@umich.edu](mailto:seas-projects@umich.edu)**

### **What is a Master's Project?**

Master's Projects are interdisciplinary *assessment, problem-solving or research projects* conducted by a multi-disciplinary group of 4-6 Master's degree students as the capstone requirement of their academic program at the University of Michigan's School for Environment and Sustainability (SEAS). Projects provide client organizations with insights into complex environmental issues and useful products, often at little or no cost, while providing students with a professional, team experience. These projects focus the substantial capabilities of SEAS students and faculty on real-world problems facing clients. Project ideas are developed by clients, faculty, and/or students.

### **How might this opportunity benefit your reserve, sector or NERRS?**

A reserve, sector or the NERRS would be a fitting client for a SEAS Master's Project. SEAS is a professional graduate program, with most students having 2-5 years of work experience before beginning their graduate studies. Students seek real-world opportunities to apply and hone the skills they've gained during their degree, demonstrate capabilities, and gain additional knowledge. Their interests span the array of issues and challenges of interest to reserves, including ecosystem management, ecosystem services, environmental education and outreach, collaborative resource management, coastal resiliency, and community adaptation to climate change.

Master's Projects also provide reserves with an opportunity to train the next generation of coastal and estuarine management professionals by helping them build critical analytic and problem-solving skills. SEAS students are often awarded NOAA's Coastal Management and Knauss Fellowships and transition into full-time positions with government agencies and NGOs. For example, students involved in the projects listed below now work for NOAA; U.S. EPA; NH Department of Environmental Services; WA Department of Ecology; CA Coastal Conservancy; San Francisco Bay Conservation and Development Commission; National Oceanographic Partnership Program; USFWS; and, the Pew Charitable Trusts.

### **What is expected of project clients?**

- Attend client fair (Jan '19) in person or remotely to discuss your idea with students.
- Provide at least one primary contact who can represent your reserve, sector or the NERRS for the duration of the 15-18 month project.
- Participate in key planning meetings with the Master's Project team and faculty advisor.
- Review draft documents and offer feedback to the team in a timely fashion.
- Help the team with access and/or referrals to important contacts and stakeholders.
- Help the students in conceptualizing the project and interpreting its findings.
- As possible, help students secure additional funding or resources; provide assistance in arranging site visits (e.g. local lodging, office space).

**Current NERR project: *Evaluating Human and Environmental Well-Being in Alaskan Watersheds through Ecosystem Services Modeling and Monitoring for the Kachemak Bay Reserve, January 2018-April 2019***

A three-student project team is currently working with Coowe Walker and Syverine Bentz at the Kachemak Bay Reserve to identify benefit-relevant socioeconomic indicators for ecosystem services on the Kenai Peninsula. Concerns over increasing stress to the ecosystem, rooted in climate change impacts and development pressures, have prompted Kachemak Bay Reserve to investigate ways of conceptualizing and communicating ecosystem services to link the biophysical and socio-economic health of the region. The project team is building socioeconomic indicators for ecosystem services based on an existing Kachemak Bay socioeconomic profile and well-studied watershed functions (e.g. blue carbon sequestration, water filtration, salmon habitat support) in order to track human and environmental health into the future. Click [here](#) to learn more about the project.

**Past NERR project: *Saco River Watershed Collaborative Assessment for the Wells Reserve, January 2017-April 2018***

A four-student project team worked with Chris Feurt at the Wells Reserve to conduct the background research necessary to inform the creation of a collaborative organization in the Saco River watershed. The watershed, which spans Maine and New Hampshire and provides important ecosystem services to over a quarter million residents, faces conflicts around private water extraction, recreation, dams, and development. The Wells Reserve hoped to engage federal, state, and municipal agencies, nonprofits, businesses, and community leaders in creating a watershed collaborative to jointly address these issues.

After working with Chris Feurt in Spring 2017 to develop a project proposal, timeline, and budget, the students visited the watershed in May 2017 to interview stakeholders and participate in meetings and site visits. They spent the summer conducting follow up phone interviews, reviewing literature on collaborative watershed management, and analyzing interview transcripts. The student team presented their preliminary findings to stakeholders in September 2017 and visited the watershed again in January 2018 to present their [final report](#).

**Examples of prior projects on topics of potential interest to NERRS**

- [“\*An Assessment of Institutional Relationships at the Olympic Coast National Marine Sanctuary\*.”](#) April 2012, Client: NOAA Olympic Coast National Marine Sanctuary
- [“\*Climate Ready Great Lakes Training Modules\*.”](#) April 2011, Client: NOAA Great Lakes Sea Grant Network
- [“\*Resilience of Oregon Coastal Communities in Response to External Stressors\*.”](#) August 2016, Client: Oregon Department of Fish and Wildlife

**For more information:**

To learn more, visit <http://seas.umich.edu/research/capstone>.

Prof. Julia Wondolleck ([juliaw@umich.edu](mailto:juliaw@umich.edu)) is also available to discuss project ideas.