

MASTER'S PROJECT CLIENT OVERVIEW

Master's Projects provide students the opportunity to analyze and propose solutions to a real-world environmental problem. Teams of 3+ students develop the project scope based on a proposed idea from the sponsoring organization, referred to as the client. The team works with the client until project completion.

The final project proposal, agreed upon by team members and clients, should include: (1) clear educational objectives; (2) anticipated research question(s), tasks, and products; (3) clearly defined interdisciplinary components; (4) a description of each team member's previous experience or preparation as required to complete their tasks in the work plan; and (5) anticipated time-line to complete project and deliverables.

There is no minimum time requirement for clients to interact with the student team, rather it is up to the client and team to define this as part of their work plan for the project. Clients may choose to financially support the team. This can take the form of limited assistance for travel expenses, housing for overnight research, or printing costs for project deliverables. Students also submit funding proposals for limited financial support available from SEAS.

SUCCESSFUL CLIENTS ARE:

- Fully engaged and committed to work with the team for the duration of their 15-18 month project.
- Supportive of the educational goals of the project. The team and client may discuss expectations regarding feedback versus supervision when defining the project scope and work plan.
- Responsive to student questions. Students likely select a project based on their career or research interests. Anticipate fielding student questions about your career path or areas of expertise.
- Consistent in providing a single point of contact for the team and timely in response to team members. Providing a single point of contact for the team advances communication and leads to a quicker execution of ideas.
- Constructive with feedback. The client may provide ongoing communication as well as draft reviews according to the project work plan.

CLIENT PRIVACY

- Clients may request non-disclosure agreements due to the nature of the data they share with student team members. This is an agreement between the students and client organization, and as a general rule students do not sign this document on behalf of the University of Michigan.
- Whatever proprietary statement is signed can not prohibit student work from being shared with the general public, but the agreement can be written to mask proprietary information - for example, substituting a pseudonym Supplier X for a specific company name.
- Negotiation of the terms and conditions of an agreement may be necessary. These negotiations are conducted through the U-M Office of Research and Sponsored Projects, who has expertise related to openness of research.
- A sample master's project non-disclosure agreement is available upon request.



PAST PROJECT EXAMPLES

TYPES OF CLIENT ORGANIZATIONS

- Local government - Hannahville Indian Community, Village of Dexter, Traverse City
- Non profit - Southwest MI Land Conservancy, Huron River Watershed Council, Detroiters Working for Environmental Justice, Great Lakes Wind Collaborative
- Corporate - Ford, GM, DTE Energy, Swedish Biogas International, Arbor Brewing Company, Aurora Organic Dairy, Design Workshop
- Federal agencies - NOAA, USDA, National Park Service, Fish & Wildlife Service
- International organizations - WWF, World Resources Institute, Ho Avy, European Commission: Community Research and Development Service
- National, state and local parks - Huron-Clinton Metroparks, Yellowstone National Park, Glacial Park

FUNDING FOR TRAVEL & HOUSING

- The non-profit Detroiters Working for Environmental Justice did not financially support the project team. Student team members secured funding from SNRE for travel to research sites and conferences, as well as to purchase necessary software to complete their analysis.
- Student food and housing during research trips to Madagascar was provided by the client, Ho Avy. Partial funding to the team also covered printing costs for reports and landscape designs.
- The National Park Service provided housing and office space to student team members working at Sleeping Bear Dunes National Lakeshore.
- The Climate Change, Agriculture and Food Security program provided partial funding to cover travel costs to research sites in Brazil and Indonesia.
- "Charting the Course for Sustainability at Aurora Organic Dairy: Phase 1 Energy & Carbon Footprint Analysis," funded the master's project research as well as paid 3-month internships for 4 student team members.

CLIENT INVOLVEMENT IN RESEARCH

- SEAS students traveled to India to study waste-water solutions with Primal Water. Client contacts introduced the research team to community stakeholders that hosted on-the-ground pilot projects at local franchises.
- The National Forest Foundation arranged stakeholder interviews at sites across the U.S. so that master's project students could assess successful collaborative forest restoration projects.
- The European Commission: Community Research and Development Information Service shared Environmental Justice Organizations, Liabilities and Trade database forms with students researching US case studies.

PROJECT LOCATION

- Client representatives from the International Forest Resources and Institutions (IFRI) hosted student team members in Nepal while they interviewed stakeholders in Bharatpur, Kathmandu and Shaktikhor.
- Students traveled to Madagascar to develop a sustainable management plan for the village of Ronobe.
- A master's project team analyzed ungulate migrations at three locations across Wyoming and California and recommended strategies to improve over-land corridors.
- Students worked in watersheds around Portland, Maine to identify incentives for private landowners to adopt conservation management practices to enhance downstream water quality.
- Master's project team members worked with Traverse City to redesign the Boardman River corridor and integrate it culturally and ecologically.
- Students worked with a Detroit green-building incubator to grow triple-bottom-line businesses that enhance sustainability for people, profits, and the planet.
- A master's project team worked virtually to model wind farm transmission line placement and identify areas where investment is cost-competitive for wind power transmission and natural gas plants.

TYPES OF DELIVERABLES

- The project team developed a site-specific environmental management plan for Boyne Mountain Resort - recommending energy, water, waste and ecosystem impact reductions.
- An outdoor classrooms and place-based curriculum guide were developed by the students working on the "Discovering PLACE" project.
- Student team and members drafted recommendations and GIS maps to improve tribal trails systems in the Jocko Valley, Montana Flathead Reservation.
- Master's Project students conducted a three-phase project for Aurora Organic Dairy. Phase 1 analyzed energy and GHG life-cycle impacts, Phase 2 reported water, waste and nutrient life cycle analyses, and Phase 3 resulted in a prototype corporate sustainability report.
- The Mexican Fund for the Conservation of Nature put forward a project to analyze green house gas policies and carbon offset purchasing behavior among US companies.

REVIEW ARCHIVED PROJECTS ONLINE

- <http://seas.umich.edu/research/capstone/projects>
- <http://deepblue.lib.umich.edu/handle/2027.42/35325>