

## Capstone Project Proposal Application

**Organization Name:** City of Madison

**Project sponsor/liaison name:** Jeanne Hoffman

**Project sponsor/liaison title:** Sustainability Manager

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**City:** Madison

**State:** Wisconsin

**Website:** <http://www.cityofmadison.com>

**Organization Description:** Local Government

### **Organization's Mission, scope of work, key activities, target population ( 1- 2 paragraphs.)**

This project will be located in the City of Madison's Engineering Division/Sustainability Office. The Office, led by the City Sustainability Manager, is charged with the mission of achieving the City's environmental protection and resiliency goals as expressed in its Sustainability Plan. ([cityofmadison.com/sustainability/documents/SustainPlan2011.pdf](http://cityofmadison.com/sustainability/documents/SustainPlan2011.pdf)). This plan seeks to incorporate sustainability principles into the City's operational practices and to engage the community in addressing the cause and effects of climate change.

The Sustainability Manager works with City departments, the Madison City Council, the Sustainable Madison Committee, local utilities and non-profits, and the larger community to develop and update plans and marshal financial and human resources to implement them. The target populations for these efforts include the current and future residents, businesses, and institutions located within the City and the broader region. Of special relevance to the proposed Capstone project are the plan's principles of resilience, equity, and cooperation with regional partners.

### **Project overview, including objective/s, question/s to be answered, relevance, practical implications (1 – 2 paragraphs)**

Recent storm events and subsequent flooding in the Madison/Dane County region have brought into sharp focus the urgent need to prepare for the effects of climate change. The City is working diligently to identify and implement a range of strategies to limit its carbon footprint and slow the rate of climate change. However, Madison has not conducted a locally-focused disaster vulnerability assessment and plan. Such a plan would identify the range of extreme climate-

related events likely to affect our region in the next 20 years. It would also identify the populations at risk from these events and develop strategies to assure that vulnerable populations are protected from the short and long-range effects of climate unpredictability.

The LaFollette Capstone project will be a first step toward creating such a plan. The research will set the stage for the City to begin to develop its own detailed vulnerability assessment and plan. In this project, students will:

- Identify climate-related threats specific to the City and region;
- Inventory current disaster response plans for the area;
- Research the strengths and weaknesses of these plans as exemplified in the response previous extreme events, including the August 20, 2018 and subsequent flooding events;
- Scan/summarize vulnerability plans prepared by similar communities;
- Identify the topics/approaches most relevant to our region;
- Develop a case, specific to Madison, for the need for the plan; and,
- Make recommendations for next steps.

**Data and documentation available from client and other sources, and restrictions on use (data and documentation must be accessible and ready for student use no later than February 1)**

Information that will inform this plan include:

- Damage assessments from the August 20, 2018 storm and subsequent flooding;
- August 20 debriefs from first responder agencies;
- Emergency/disaster response plans. These include debriefs from table-top exercises conducted by Madison Fire Department and other agencies;
- Engineering surveys of critical infrastructure and low-lying areas;
- Public Health data on vulnerable populations;
- Access to interview local first responders and health professionals;
- Contact information for sustainability officers in other communities; and,
- Best practice documents developed by national/international leaders in the field of resilience planning, including the Rockefeller Foundation's 100 Resilient Cities program and ICLEI.

**Client expectations, including type of recommendations sought (1 - 2 paragraphs)**

- Students will consult regularly with the Sustainability Manager on progress;
- Students will meet with and report on their progress to the Sustainable Madison Committee at its monthly meeting throughout the project;
- Students will be encouraged to attend and actively participate in the 2019 Adaptation Conference to held at the Monona Terrace Convention Center in April;

- Students will become familiar with the City’s Equity Tool and consider how it may be applied in a vulnerability plan;
- Students will prepare a written report submitted to the Madison Common Council and Sustainable Madison Committee; and,
- Students will be aware of the specific conditions and issues that affect Madison and make a case for the plan and recommendations that are specific to and of practical relevance to Madison.

**Additional information, including UW-Madison/LaFollette School connection and special considerations.**

The City of Madison has long-standing positive relationship with the LaFollette School which has been of mutual benefit to the community and the students. LaFollette School students have recently made significant contributions to the City’s open data and performance measures projects. LaFollette students have worked directly with the Sustainability Manager to measure the City’s energy outcomes.