

Milwaukee Metropolitan Sewerage District-Marquette University

WaterCARE Call for Proposals – 2018

Overview: The Milwaukee Metropolitan Sewerage District (MMSD) and Marquette University (MU) have initiated the Water Coordinated Activities on Research for the Environment (WaterCARE) project to coordinate research activities that help improve water resource reclamation and protect the environment. In this collaboration, MU works with MMSD to achieve the vision of a healthier Milwaukee region and a cleaner Lake Michigan.

The vision for the WaterCARE project is that innovative technologies, communication efforts, policy information and knowledge will be generated to help MMSD continue to advance a healthier Milwaukee region and a cleaner Lake Michigan through research that is aligned with the MMSD 2035 Vision and the 2016-2018 Strategic Plan. The goal of WaterCARE is to enable MU faculty, staff, and students to interact with MMSD personnel; develop and collaborate on new research projects; and more effectively contribute the broad range of MU expertise to the work of MMSD.

Seeking Project Proposals: MMSD and MU are seeking proposals from faculty members for research projects to be performed from August 1, 2018 to July 31, 2019. It is envisioned that annual WaterCARE requests for proposals (RFPs) will be issued from 2018 to 2022. Projects may be renewed for subsequent years, with consideration for renewal based on submission of annual project proposals.

Project Areas: WaterCARE proposals are requested to develop or advance faculty work regarding protection of our water resources, with special interest in the following:

- (1) Nutrient recovery (nitrogen with respect to minimizing toxicity in the effluent, minimizing GHG throughout the treatment plant [such as nitrous oxide emissions from aeration] and maximizing recovery/reuse);
- (2) Green Infrastructure construction, operation management and assessment;
- (3) Advanced water and resource reclamation processes (anaerobic digestion, rapid disinfection, and/or emerging contaminants);
- (4) Biosolids pyrolysis including biochar, bio-oil and py-gas utilization (condensate handling/co-digestion);
- (5) Reports and data to inform policy decisions reviewing the reliability of assets and the “firm capacity” of design standards. Or, topics related to climate change, precipitation and levels of protection;
- (6) New approaches and analysis of communicating water-related information;
- (7) The hydrology of residential private property parcels and the influence of green infrastructure (GI) and I/I reduction strategies;
- (8) Low cost odor mitigation strategies for WRFs;
- (9) Assessment of precious metals content in MMSD wastewater and biosolids and feasibility of recovery;
- (10) Stormwater pollutant removal from the Milwaukee County zoo. Compare conditions without GI and then after GI implementation; and
- (11) Other project areas not specifically listed herein.

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Investigators are encouraged to email their ideas to waterqualitycenter@marquette.edu before submitting their proposal to gauge the appropriateness of the project.

Proposed use of the MU Global Water Center (GWC) facility is highly desirable. The MU GWC space includes a meeting/classroom area for up to 30 people, a lobby/display space (floor space of 500 ft²), faculty/professional office space (seven desks), graduate/undergraduate office space (12 desks) and laboratory/testing space (5000 ft²) with shared utilities and equipment. Applicants are encouraged to apply separately for GWC space allocation via the MU Office of Research and Innovation.

Format and Process: Proposers should submit a project executive summary, a project narrative no more than five pages, a budget and budget justification (template provided), and a Curriculum Vitae (CV)/Resume of no more than 2 pages for each key member of the proposing group. The font should be Arial 10-point with 1-inch margins.

Questions may be emailed to WaterCARE at waterqualitycenter@marquette.edu.

Qualification Criteria: Qualifying proposals must meet the following criteria:

- **Field of Study** – activities to advance water technology, policy and public awareness
- **Proposers** – projects directed by Marquette University faculty
- **Project duration** –The project duration shall be for one year, (August 1, 2018 to July 31, 2019) with clear deliverables stated. Multiple-year project durations are possible for certain projects, but are not guaranteed, and consideration for renewal will be based on submittal of annual project proposals.
- **Budget**– Proposal total budgets should be between \$10,000 and \$100,000. Other amounts will be considered under special circumstances depending on the work proposed. Please use the standard MU Facilities and Administrative (“Indirect”) Cost Rate.

Evaluation Criteria: Proposals should clearly tie the proposed work to the MMSD 2035 Vision and/or 2016-2018 Strategic Plan.

(<https://www.mmsd.com/about-us/2035-vision> and <https://www.mmsd.com/about-us/strategic-plan>). Proposals having a high probability of success will be novel, involve collaboration among MU and MMSD personnel, have a well-defined approach and methodology, will be appropriate for the proposer(s) based on past professional experience; contain clear goals and deliverables; and have a high probability of advancing clean water technology, policy and/or public awareness.

Tentative Timeline:

- 3/9/18: Call for proposals released
- 4/3/18: Informational session for potential proposers: 8 AM- 9 AM, Global Water Center, 6th floor
- 5/25/18: Deadline for submission of proposals
- 6/29/18 Proposers notified of awards
- Project period: 8/1/18 to 7/31/19

Application Process: E-mail the completed proposal application in a single PDF file to WaterCARE at waterqualitycenter@marquette.edu.