**Scope of Work**

**Wisconsin DNR Office of the Great Waters**

***Project Title:*** Designing Barkers Island Beach Restoration Project

***AOC(s):*** St. Louis River Estuary

***Project Applicant:*** City of Superior

Linda Cadotte; Director of Parks, Recreation and Forestry

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***Project Location:*** Barkers Island Inner Beach, St. Louis River AOC, Superior, WI. The project area considered under this project will include City of Superior owned land as well as adjacent landowners that may incorporate design elements that contribute to water quality at the beach.

***Problem Statement:*** Barkers Island Inner Beach is a recreational area owned by the City of Superior. It has been routinely sampled for *E. coli* during the beach season over the past decade and data suggest that a number of *E. coli* sources influence the water quality at the beach. Restoration of the beach and recreational area is needed to mitigate potential *E. coli* sources and contribute to beneficial use impairment (BUI) removal and is listed as project 7.02 in the SLR Remedial Action Plan (<http://dnr.wi.gov/topic/greatlakes/st.louis.html>). A number of potential pathogen sources have been identified including: stormwater runoff, waterfowl and gulls, trash and debris, and pets.

***Proposed Work:*** This project will be implemented through an Aid Agreement between WDNR and the City of Superior to design a beach restoration project at Barkers Island Inner beach. The design will utilize existing sanitary survey, merit report and pathogen data to mitigate potential *E. coli* sources that are contributing to human health concerns. The design will incorporate community input and utilize low impact design principals to achieve greater infiltration and storm water treatment at the beach. The design may incorporate buffer strips, infiltration swales, pervious pavers, removal of impervious surfaces, beach nourishment, trash and debris management and increased signage. A design team will be formed that represents local stakeholders and BUI technical team members. A monitoring and maintenance plan will be developed during the design. A biddable design will be produced and implementation will be pursued during the 2018 construction season with the schedule considering local events that utilize the beach.

***Collaboration with partners:*** WDNR has collaborated withresearchers anda BUI technical team to evaluate the Beach Closings and Body Contact Restrictions BUI in the AOC. This project will utilize local expertise at UW-Superior Lake Superior Research Institute, Douglas County Health Department, City of Superior, Minnesota Department of Health, MN Sea Grant, and the Lake Superior National Estuarine Research Reserve as well as local citizen input to finalize the restoration design.

***Timetable:*** July 1, 2017- June 30, 2018

Project planning will begin in July and design contracts should be in place by September of 2017. A project team will be formed and a meeting will be called in September of 2017 to begin a conceptual design.

If possible, the project design should complement the Barkers Island Inn hotel parking lot re-design and efficiencies may be achieved if construction schedules can be aligned.

Two public input meetings will be held prior to February 1, 2018.

Target completion for the preliminary design is February 15, 2018. The preliminary design should include adequate information so that an implementation proposal can be submitted for funding consideration immediately. The target for a final design deliverable will be April 30, 2018.

A 10 year monitoring and maintenance plan will be contracted separately and will be developed during the design process and after the final design is complete.

***Deliverables***:

* Quarterly reporting and invoicing to WDNR: Quarterly reporting will be due on, July 15, October 15, January 15 and April 15 of each year of the grant.
* Project team meetings as appropriate (minimum of 4). Meeting summary and attendance should be included in grant reports.
* Required elevation, survey and geotechnical measurements for cost estimates, calculations and final design engineering
* Conceptual design and drawings (30%) including: grade changes and beach nourishment, size and placement of features such as buffer strips, rain gardens, infiltration swales, trash and debris receptacles, paths and cord walks, public access features, vegetation management and signage.
* Public input meetings as appropriate (minimum of 2). Meeting summary, photo documentation and attendance should be included in grant reports.
* Parks & Recreation Commission meeting
* Preliminary design adequate for grant proposal submission (construction cost estimate, design feature information, and map) (February 15, 2018)
* 95% construction design, specifications and cost estimate (biddable document). Design will include identification of permitting requirements and consultation and review of designs and specifications with WDNR non-point and Chapter 30 permitting staff. Design includes construction schedule that will accommodate local community events and other construction on Barkers Island. (April 30, 2018)
* Any reports, fliers, outreach materials developed as part of these grant funds need to acknowledge the funding source (EPA GLRI and WDNR)

***Project Budget:***

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| **Budget Table** | **July 1, 2017 – June 30, 2018** |
| Personnel and Fringe | **$7,125** |
|  |  |
| Equipment | **$0** |
| Supplies | **$0** |
| Contractual | **$70,500** |
| Other | **$700** |
| **Total Direct Cost** | **$78,325** |
| Indirect cost (15%) | **$1,069** |
| **Total Cost** | **$79,394** |

***Budget Detail:***

Personnel costs include City of Superior Director of Parks and project manager for overall project management, project team meetings, parks & recreation commission meetings, and public meetings Rates are: Director of Parks for 110 hours @ 58.49/hour and 15 hours of contracting staff @ 46.04/hour.

Contractual includes design engineering consultant to complete design package as specified above.

Other costs include advertising, posters and visual presentations for the public meetings.