**Scope of Work**

**Wisconsin DNR Office of the Great Waters**

***Project Title:*** Barkers Island Inner 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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***WDNR Project Manager:***

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***Project Location:*** Barkers Island Inner Beach, St. Louis River AOC, Superior, WI. The project area considered under this project includes approximately acres of City of Superior owned land.

***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 7.04 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 implement the beach restoration project as designed at Barkers Island Inner beach. The project team worked with an engineering firm and the City to design the project from September of 2017 to May of 2018. The project includes removing impervious surfaces, constructing buffer strips, infiltration swales, pervious pavers, beach sand augmentation, restroom facility, trash and debris management and increased signage. A monitoring and maintenance plan is in development and monitoring and maintenance tasks will be implemented by the selected contractors and City. The City is providing in kind services and personnel hours to construct certain elements of the designed project.

***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 has utilized 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.

***Timetable:*** May 1, 2018- November 30, 2020

The City will begin to solicit competitive bids in May 2018 and construction contracts should be in place by July.

Public outreach about construction and project safety will begin as soon as construction timelines are established.

Target completion for the project construction is November 30, 2018. Additional site work, such as plantings, may take place in the spring of 2019. Final construction, including as built documents, will be completed no later than December 1, 2019.

Monitoring and maintenance (including any repairs) will begin as soon as construction work is completed and continue through the two-year warranty period (November 30, 2020). Warranty period monitoring of project outcomes will be contracted separately. Monitoring will begin the following beach season after completion of construction (i.e., Memorial Day weekend through Labor Day weekend of 2019 and 2020). Monitoring will include sanitary surveys, e. coli samples, and wetland monitoring. An annual monitoring report will be submitted to the project team.

The City of Superior will establish an agreement to perform the maintenance of project features as outlined in the 10-year plan and continue maintenance after the two seasons of monitoring and maintenance included in this project.

***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.
* Solicit competitive bids for construction of the final restoration design.
* Construction of the preferred restoration design by qualified contractor(s), including as built documents, completed by December 1, 2019.
* Construction oversight by qualified oversight contractor(s).
* Weekly project team meetings during construction (as appropriate).
* Implementation of the Ten-Year Monitoring and Maintenance Plan by qualified contractor(s) for two beach seasons immediately after construction is completed (as appropriate considering a warranty period for certain project aspects). Monitoring and maintenance through November 30, 2020.
* Presentation of the project at Parks & Recreation Commission and City Council meetings as necessary.
* Any reports, fliers, outreach materials developed as part of these grant funds need to acknowledge the funding source (EPA GLRI and WDNR)

***Outcomes:***

* Complete project 7.04 in the SLRAOC RAP.
* Reduce the occurrence of beach closures at the Barkers Island Inner Beach
* Provide a body contact recreation area in the AOC with improved water quality, access, safety and aesthetics.
* Establish a long-term maintenance routine and agreement for the implemented project that ensures project features continue to function as designed and following the Monitoring and Maintenance plan.
* Measure the success of the restoration project using monitoring data

***Project Budget:***

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|  | **Project budget** |
| Personnel and fringe | $0 |
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| Equipment | $13,500 |
| Supplies | $0 |
| Contractual | $658,749 |
| Other | $0 |
| **Total Direct Cost** | $672,249 |
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| **Subtotal** | **$672,249** |

Contractual amount includes funding to the City of Superior to hire a contractor to implement the designed beach restoration project and complete the deliverables listed.

Equipment is the purchase of one walk behind style beach cleaner to remove debris and contaminants from the beach area. The cost of the beach cleaner is $13,500. The City would utilize the equipment during the project period and beyond for proper long-term maintenance of the beach.

City of Superior will also be providing voluntary in-kind services and staff time for project work including construction items such as site demolition work, concrete work pavement and walkways, signs, etc as well as some post construction maintenance labor and supply costs total up to approximately $120,000.