

## QUESTIONS AND ANSWERS

Request for Qualifications  
Remedial Engineering Design for Kewaunee Marsh Arsenic Contaminated Site  
Wisconsin DNR – Remediation and Redevelopment Program

- 1. *Has WDNR established final cleanup levels or arsenic in soil, sediment, and water at the site? If not, what process and timeline will be used to select these standards?***

A site-specific residual contaminant level (RCL) of 20 mg/kg for the soil/sediment has been established as protective of human health via direct contact based on the recreational use of the site. We expect to select the final removal extent based on the results from the 30 percent design, which will include an updated spatial analysis of the extent of contamination and a preliminary cost estimate for various removal extents (e.g., 20 mg/kg and 50 mg/kg). Based on budgetary constraints, it is assumed that not all of the material with concentrations greater than 20 mg/kg can be removed from the Site and there will be need to design an approach to manage the residual contamination to be protective.

The Wisconsin Administrative (Wis. Admin.) Code ch. NR 105 surface water quality criteria are the basis for cleanup levels in surface water at the Site. A cleanup goal of 40 µg/L is anticipated to be the target for the standing surface water in the marsh and 13.3 µg/L for surface water within the Kewaunee River based on human cancer criteria (Wis. Admin. Code § NR 105.09). Details on performance monitoring locations and targets are anticipated to be finalized during the remedial design.

- 2. *Are there any remaining data gaps or site areas that require additional investigation prior to remedy implementation?***

A treatability study will be needed for the removed materials and the aqueous phase generated from the dewatering process prior to disposal. Based on the existing data and information, the consultant should provide their professional recommendation whether additional investigation is needed during the design phase (additional investigation is expected to be minimal, if any).

- 3. *Will a formal feasibility study be required as the next step, or is the intent to proceed directly to remedy selection based on the pre-design characterization and RAOR?***

The intent is to proceed directly to remedy selection per Wis. Admin. Code ch. NR 722.

- 4. *As part of the remedial options discussed in the RFQ, does DNR favor moving forward with further evaluation of In-Situ injections as a component of the final remedy.***

No, the performance monitoring for the in-situ treatment pilot project demonstrated that it is not a viable approach for remediating arsenic contamination at the Site.

- 5. Given the variety of media impacted and different target performance standards for clean-up will the remedial design include a post remedy monitoring plan?**

Yes, the DNR intends to include a monitoring plan (Wis. Admin. Code ch. NR 724) in the scope of work for the remedial design. This will include post-remediation confirmation sampling and short- and long-term performance monitoring.

- 6. The RFQ indicates that the design must be integrated with wetland restoration plans to be developed, potentially at a later date as funding allows. Are there existing conceptual design or goals/ objectives for the restoration available, to allow for consideration in the design of the remedy?**

The remediation of the contamination on site will be the first step and priority in the design process. The DNR will provide wetland restoration goals and objectives for the Site in the request for proposals (RFP); the restoration goals are expected to be adaptive to integrate with the selected remedy.

- 7. The RFQ requests cost estimates at the preliminary design and final design stages. Given cost considerations do you anticipate evaluating costs at say 30% or 60% design stages?**

Yes. We anticipate that scope of work in the RFP will include cost estimates at intermediate design stage(s).

- 8. Will there be a site visit scheduled?**

The DNR will not be scheduling a DNR-led site visit but will strongly encourage all consultants invited to submit proposals to visit the site at their convenience during proposal development. The Site can be reached on Anhapee State Trail. Information on how to best reach and view the Site will be shared with consultants invited to submit proposals.

- 9. The project is located in the floodway. I would assume that a goal is not to conduct an H&H study. Is this correct?**

Some type of hydrologic analysis is expected to be needed for the restoration design, to assure resilience and understand the influence of Lake Michigan water levels on the coastal wetland enhancements.

- 10. It is assumed that the project will not be raising the grade in the wetland between pre-construction and post construction. Could you confirm that a pre-construction and post construction survey will be required/**

Pre- and post-construction surveys are likely to be part of this remedial construction and wetland restoration process.

- 11. Has there been any initial coordination with USACE?**

No

**12. Is the consultant required to complete the wetland permitting with WDNR and Army Corps?**

The consultant is expected to provide permitting assistance to the DNR for the project.

**13. Is there Federal Funds involved in the project? Will the consultant be required to complete documentation for the Endangered Species Act?**

Federal funds may be involved in this project. We do expect the project will need to meet certain federal compliance items for regulatory approvals regardless of if federal funding is needed or not. The consultant is expected to provide services to assist DNR with these processes including Sec. 7 and Sec. 106 of the Endangered Species Act and National Historic Preservation Act, respectively.

**14. Does the Department anticipate in water restrictions other than no work before June 15<sup>th</sup> and after September 15<sup>th</sup>?**

Any restrictions on in-water activities will be further evaluated during the remedial design and permitting.

**15. Is bidding and preparing specifications part of the scope of work?**

Yes.

**16. Is there a need to identify a source of quality salvaged organic material either on site or off site as part of the restoration plan.**

The design will dictate if there is a need to identify salvaged organic material.

**17. Is there an understanding of the permits that will be required? Will existing permits carry over? Who is responsible for obtaining and managing the permits?**

The consultant will be responsible for identifying all necessary permits.

**18. When was the most recent well monitoring conducted, and how effective has the previous restoration work been?**

The most recent well monitoring was conducted in 2017 and 2018, with a total of 17 samples collected. The previous interim action cover is degraded and no longer functions as a direct contact barrier and the *in-situ* treatment was not effective.

**19. Which jurisdiction applies: WDNR wetlands, Army Corps wetlands, County/State parks.**

Compliance with federal, state and local regulations is anticipated.

**20. What is the project budget, and are the funds currently approved?**

The DNR has access to state-approved funding of up to \$2 Million for the remedial design.

**21. What are the long-term monitoring objectives? How much funding will be allocated for monitoring and for how long? (Note: Monitoring is usually critically overlooked in restoration projects because of the time involved.)**

Objectives for long-term monitoring of the remedy and restoration work will be shared in the RFP. The selected consultant will collaborate with the DNR to propose a post-construction long-term monitoring plan aimed at achieving the long-term remedial and ecological goals for the Site. Funding for monitoring is anticipated to be included in the implementation budget.

**22. Have remedial objectives for arsenic been established for the project? The most recent report indicated that objectives for arsenic impacts were being developed at the time of the report.**

See response to Question 1.

**23. Will different restoration standards apply for peat, mineral, and mixed soil types? Is there a preferred method for restoring peat subsoils, or what alternatives are acceptable?**

It was unclear if the question is referring to remedial action levels or alternatively to some type of ecological restoration standard. If remedial action levels, there will be no differentiation in remediation target levels for arsenic between solid material types.

**24. What is the definition of wetland restoration for this project? If the goal is to provide a better-functioning wetland, what parameters will be used to evaluate success? Have any restoration standards, including flora, fauna, and time, been developed or outlined by the WDNR?**

Details on the goals and objectives for the wetland restoration will be included in the RFP. In summary the wetland restoration should improve the physical and biological attributes of the site to provide improved ecological function and quality of fish and wildlife habitat. The most desirable wetland type, if achievable, is hemi-marsh.

**25. Will a site visit be required as part of the RFP response.**

See Response to Question 8

**26. Will there be an opportunity for additional questions relative to the RFP for the firms selected to provide an RFP response? If an additional question period is not anticipated as part of the RFP, we respectfully submit the following additional questions...**

Yes, there will be opportunity for questions on the RFP. Therefore, responses to subsequent questions are not included here.

**27. Have the wetlands been delineated and characterized?**

No, not beyond publicly available Wisconsin Wetland Inventory mapping.

**28. Will preexisting wetland characteristics be used as a benchmark for the ecological restoration**

The existing condition of the wetland will be used as the baseline for evaluating the restoration post-construction. Detailed metrics for successful restoration will be determined during the design phase and included in the larger remediation plan.

**29. Will the restoration design require an evaluation of the existing wetlands from an ecologist?**

Yes. DNR staff will also collaborate with the design team to share information they possess about the ecology of the area.

**30. For the surface water discharge requirements, will the WPDES permit be applied for by the WDNR or is there a permit in place already? Will the discharge requirements be determined by the permit or will they need to be calculated in accordance with the NR 100 series?**

A Wisconsin Pollution Discharge Elimination System (WPDES) permit is not in place for implementation of the final remedy. The consultant is expected to provide permitting assistance to the DNR for the project during the design phase. A site-specific individual discharge authorization with substantive requirements of a WPDES permit with calculated effluent limitations may be required in accordance with the NR 100 series.

**31. Has the DNR made a determination on a site-specific cleanup standard as mentioned in the Pre-design Site Characterization Report?**

See response to Question 1.