

**STATEMENT OF WORK
FOR THE REMEDIAL DESIGN FOR
OPERABLE UNIT 1 AT THE
LOWER FOX RIVER AND GREEN BAY SITE
BROWN, OUTAGAMIE, AND WINNEBAGO COUNTIES, WISCONSIN**

I. PURPOSE

This Statement of Work (SOW) sets forth the requirements for the Remedial Design (RD) for all components of the remedial action set forth in the Record of Decision (ROD) for Operable Unit 1 (OU1) of the Lower Fox River and Green Bay Site (Site).¹ This ROD encompasses Operable Unit 1 and Operable Unit 2 and was signed by the Deputy Administrator, Water Division, Wisconsin Department of Natural Resources (WDNR) and the Superfund Director of EPA Region 5 on December 18, 2002 and December 20, 2002, respectively.² This SOW addresses only the Remedial Design for OU1. The Respondent shall develop the Remedial Design consistent with the ROD, the Consent Order to which this SOW is attached (AOC), EPA Superfund Remedial Design and Remedial Action Guidance, and any additional guidance provided by the Response Agencies in submitting deliverables for designing a remedial action for the Site. This SOW does not include implementation of the remedy.

II. DESCRIPTION OF THE REMEDIAL ACTION / PERFORMANCE STANDARDS

The Respondent shall design the remedy necessary to meet the Performance Standards and specifications set forth in the ROD for OU1, as discussed below (Alternative C2). The Remedial Design shall address the timing and sequencing of the remedial action to account for the multifaceted and multi-year components of the remedy. Appropriate consideration of the provisions of the contingent ROD, and such other work as proposed by Respondent under the AOC, may also be incorporated into the Remedial Design process.

¹ “Operable Unit 1” or “OU1” shall mean the Little Lake Butte des Morts reach of the Lower Fox River, as delineated by the Record of Decision signed by WDNR and EPA in December 2002. More specifically, OU1 is the portion of the Lower Fox River (and the underlying River sediment) starting at the outlet of Lake Winnebago at the Neenah Dam and the Menasha Dam downstream to the Upper Appleton Dam, including sediment deposits A through H and POG. As so defined, OU1 is depicted in Figure 7-9 of the December 2002 Final Feasibility Study, a copy of which is attached to the Consent Order as Attachment B.

² Operable Units 3, 4, and 5 of the Lower Fox River and Green Bay Site will be addressed in a separate Record of Decision.

OPERABLE UNIT 1 – LITTLE LAKE BUTTE DES MORTS, ALTERNATIVE C2 - Alternative C2 includes the removal of sediment with PCB concentrations greater than the 1 ppm remedial action level (RAL), followed by dewatering and off-site disposal of the sediment

- **Site Mobilization and Preparation.** The staging area for OU1 will be determined during the design stage. Site preparation at the staging area will include collecting soil samples, securing the onshore property area for equipment staging, and constructing the sediment dewatering facility, water treatment facilities, and sediment storage and truck loading areas
- **Sediment Removal.** Sediment removal will be conducted using a dredge (e.g., cutterhead or horizontal auger or other method) or other suitable sediment removal equipment.
- **Sediment Dewatering.** Sediment that is removed will require dewatering.
- **Water Treatment.** Unless other arrangements can be made, water treatment will consist of flocculation, clarification, sand filtration, and treatment through activated carbon filters.
- **Sediment Disposal.** Sediment disposal includes the loading and transportation of the sediment to an NR 500 landfill with Toxic Substances Control Act (TSCA) approval, if needed.
- **Demobilization and Site Restoration.** Demobilization and site restoration will involve removing all equipment from the staging and work areas and restoring the site to, at a minimum, its original condition before construction of the staging area commenced.
- **Institutional Controls and Monitoring.** Baseline monitoring will include pre- and post-remedial sampling of water, sediment, and biological tissue. Monitoring during implementation will include air and surface water sampling. Plans for monitoring during and after construction will be developed during the Remedial Design and modified during and after construction, as appropriate. Institutional controls may include access restrictions, land use or water use restrictions, dredging moratoriums, fish consumption advisories, and domestic water supply restrictions. Land and water use restrictions and access restrictions may require local or state legislative action to prevent inappropriate use or development of contaminated areas.

- **Achievement of Remedial Action Level Objective.** The mass and volume to be remediated will be determined by (1) establishing a dredge elevation based on a RAL of 1 ppm or, if sampling conducted after dredging is completed shows that the 1 ppm RAL has not been achieved, (2) by achieving a Surface Weighted Average Concentration (SWAC) of 0.25 ppm.³

III. SCOPE OF REMEDIAL DESIGN

The Remedial Design shall be consistent with the ROD for OU1. Specific tasks are described below.

Task 1: Remedial Design Work Plan

Within 60 days of receiving Notice of Authorization to proceed with Remedial Design, Respondent shall submit a complete Remedial Design Work Plan (RD Work Plan) to EPA and WDNR for their review and approval. The RD Work Plan shall discuss how each component of the OU1 remedy will be addressed, identify tasks necessary for completing the pre-design investigations and design work required by the ROD for OU1, and provide an overall management strategy for completion of such tasks. The RD Work Plan shall also include a project schedule for each major activity and submission of deliverables to be generated during the Remedial Design. The plan shall document the responsibility and authority of all organizations and key personnel involved with the design and shall include a description of qualifications of key personnel directing the Remedial Design, including contractor personnel.

Respondent shall submit the RD Work Plan in accordance with Section X of the Consent Order and Section IV of this SOW. Once EPA and WDNR approve the RD Work Plan, Respondent shall implement the plan in accordance with the approved schedule therein.

Task 2: Pre-Design Phase

On or before July 21, 2003, Respondent shall submit a Pre-design Sampling Plan for OU1 to WDNR and EPA for their review and approval. Among other things, the Pre-design Sampling Plan will describe necessary field and analytical evaluations of sediment in OU1 required for completion of the Remedial Design. The Pre-design Sampling Plan will consist of the Quality Assurance Project Plan, Sampling and Analysis Plan, and Health and Safety Plan. The Plan will not address baseline bathymetric and related surveys, which have been or will be

³ The Parties recognize that an Explanation of Significant Differences or ROD Amendment issued by the Response Agencies could result in an alternative RAL or SWAC.

performed by WDNR and/or EPA. Respondent shall submit any necessary modifications to these documents for review and approval prior to implementing the pre-design investigation.

Validated sample results shall be submitted in accordance with provisions in Section X of the AOC. Following completion of sampling and validation of data, Respondent shall submit a Basis of Design Report for approval by the Response Agencies which shall include all information collected during the pre-design investigation, as well as appropriate literature and design references. The Basis of Design report shall include the basis for designation of specific sediment deposits in OU1 for remediation. The designation of sediment deposits for removal will be subject to approval by the Response Agencies and be consistent with the Record of Decision for OU1. Presentation of alternative remedial measures may be made for Response Agencies' approval under the provisions of the contingent ROD.

Task 3: Remedial Design Phases

Following completion of the Pre-Design Phase, Respondent shall prepare construction plans and specifications to implement the Remedial Action at OU1 as described in the ROD and this SOW. Such plans and specifications shall be submitted in accordance with the schedule set forth in Section IV below. Subject to approval by EPA and WDNR, Respondent may submit more than one set of design submittals reflecting different components of the Remedial Action. All design plans and specifications shall be developed consistent with EPA's Superfund Remedial Design and Remedial Action Guidance (OSWER Directive No. 9355.0-4A), except as otherwise specified in this SOW, and shall demonstrate that the Remedial Action based on the final Remedial Design will meet all Performance Standards. Respondent shall meet regularly with EPA and WDNR to discuss design issues.

If Respondent, consistent with the ROD capping contingency, proposes to leave any capped area in place as part of the final remedy either based on recharacterization and/or other information, Respondent shall provide a detailed submittal with technical justification supporting such a proposal to WDNR and EPA for review and approval. This submittal shall be consistent with ROD Sections 13.4 and 13.5 and all appropriate EPA Guidance, and in accordance with a schedule established in the approved RD Work Plan.

If Respondent, based on investigation activities and assessments conducted during the design phase, proposes that alternative remedial measures be designated by the Response Agencies for any portion of OU1, Respondent shall provide a detailed submittal with technical justification supporting such a proposal to WDNR and EPA for review

and approval. The submittal shall be consistent with all appropriate EPA Guidance. Approval of the proposal will require either an Explanation of Significant Differences or a ROD Amendment by EPA and WDNR before it becomes effective. The submittal shall be in addition to all other submittals required by this SOW, and shall not delay the submittal of other design documents. Respondent may make a submittal proposing alternate remedial measures, and EPA and WDNR will consider the submittal, either during design or after the Final Design is completed, but before remedial action commences in the portion(s) of OU1 addressed by the submittal.

A. Preliminary Design (50%)

Respondent shall submit the Preliminary Design for OU1 to EPA and WDNR for review and approval when the design effort is approximately 50% complete. The Preliminary Design submittal shall include or discuss, at a minimum, the following:

- Preliminary plans, drawings, and sketches, including design calculations;
- Results of studies and additional field sampling and analysis, if any, conducted after the Pre-Design Phase;
- Design assumptions and parameters, including design restrictions, process performance criteria, appropriate unit processes for the treatment train, and expected removal or treatment efficiencies for both the process and waste (concentration and volume), as applicable;
- Sediment Removal Verification Plan (in appropriate phase), including the proposed cleanup verification methods (i.e., probing methods) and compliance with Applicable or Relevant and Appropriate Requirements (ARARs);
- Outline of required specifications;
- Proposed siting/locations of processes/construction activity;
- Mitigation Plan to restore habitats that have been physically impacted by sediment removal equipment or soil excavation equipment (not including the soft sediment deposits themselves);
- Expected long-term monitoring and operation requirements;
- Real estate, easement, and permit requirements;

- Preliminary construction schedule, including contracting strategy.

B. Pre-Final Design (90%)

The Respondent shall submit the Pre-Final Design when the design effort is 90% complete. The Pre-Final Design shall fully incorporate all Response Agency comments made to the Preliminary Design.

The Pre-Final Design submittals shall include those elements listed for the Preliminary Design, as well as the following:

- Draft Construction Quality Assurance Project Plan;
- Final Health and Safety Plan;
- Final Contingency Plan;
- Final Sediment Removal Verification Plan;
- Draft Operation and Maintenance Plan;
- Capital and Operation and Maintenance Cost Estimate. This cost estimate shall refine the Feasibility Study cost estimate to reflect the detail presented in the Pre-Final Design;
- Final Project Schedule for the construction and implementation of the Remedial Action addressed in this SOW which identifies timing for initiation and completion of all critical path tasks. The final project schedule submitted as part of the Final Design shall include specific dates for completion of the project and major milestones. Specific dates will assume and be dependant upon, a defined start date.

C. Final Design (100%)

The Respondent shall submit the Final Design when the design effort is 100% complete. The Final Design shall fully incorporate all Response Agency comments made to the Pre-Final Design and shall include reproducible drawings and specifications suitable for bid advertisement. The Final Design submittals shall include those elements listed for the Pre-Final Design.

D. Content of Supporting Plans

1. Health and Safety Plan (HSP)

Respondent shall develop and submit to EPA / WDNR for review and comment a site-specific HSP which is designed to protect construction personnel and area residents from physical, chemical, and other hazards posed by any work at the Site during the RA. The Health and Safety Plan shall follow OSHA requirements as outlined in 29 CFR §§ 1910 and 1926.

2. Contingency Plan

Consistent with the Consent Order, Respondent shall develop and submit to EPA / WDNR for approval a Contingency Plan that describes the mitigation procedures it will use in the event of an accident or emergency at the Site. The Contingency Plan may be incorporated into the HSP. The final Contingency Plan shall be submitted prior to the start of construction, in accordance with the approved construction schedule. The Contingency Plan shall include, at a minimum, the following:

- a. Name of the person or entity responsible for responding in the event of an emergency incident;
- b. Plan and date to meet with the local community, including local, State and Federal agencies involved in the Remedial Action, as well as local emergency squads and hospitals; and,
- c. First aid medical information

3. Construction Quality Assurance Project Plan (CQAPP)

Respondent shall develop and submit to EPA / WDNR for review and approval a draft CQAPP which describes the site specific components of the quality assurance program that the Respondent shall use to ensure that the completed project meets or exceeds all design criteria, plans, and specifications. The final CQAPP shall be submitted in accordance with the approved RA Work Plan schedule. The CQAPP shall contain, at a minimum, the following elements:

- a. Responsibilities and authorities of all organizations and key personnel involved in the construction of the Remedial Action.

- b. Qualifications of the Quality Assurance Official to demonstrate that he/she possesses the training and experience necessary to fulfill his/her identified responsibilities.
- c. Protocols for sampling and testing used to monitor the remedial action.
- d. Identification of proposed quality assurance sampling activities including the sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation.
- e. Reporting requirements for CQAPP activities shall be described in detail in the CQAPP. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, and design acceptance reports, and final documentation. Provisions for the final storage of all OU1 cleanup records shall be presented in the CQAPP.

4. Sediment Removal Verification Plan

Respondent shall develop and submit a Sediment Removal Verification Plan to EPA / WDNR for review and approval. The purpose of the Sediment Removal Verification Plan is to provide a mechanism to ensure that Performance Standards for the Remedial Action are met. Once approved, the Sediment Removal Verification Plan shall be implemented on the approved schedule. The Sediment Removal Verification Plan shall include, at a minimum:

- a. Quality Assurance Project Plan (may be part of RA QAPP);
- b. Health and Safety Plan (may be part of RA HSP); and
- c. Field Sampling Plan.

IV. SUMMARY OF MAJOR DELIVERABLES / SCHEDULE

A summary of the project schedule and reporting requirements for each phase of the OU1 Remedial Action contained in this OU1 RD SOW is presented below. The draft Pre-design Sampling Plan will sequence the work so that samples are first collected and analyzed from Deposit A/B. The portion of the design necessary to commence construction of the remedial action in 2004 will be expedited on a schedule to be specified in the RD Work Plan.

Unless modified by the final RD Work Plan or otherwise approved in writing by the Project Coordinators, the project schedule will be as follows:

<u>Deliverable / Milestone</u>	<u>Due Date (calendar days)</u>
Draft Pre-design Sampling Plan	July 21, 2003
Draft RD Work Plan	Sixty (60) days after receiving Notice of Authorization to proceed with RD.
Final RD Work Plan	Thirty (30) days after the receipt of comments.
Monthly Progress Reports	As described in the Consent Order and SOW.
Pre-design Sampling	Initiate within thirty (30) days after receipt of Notice of Authorization to proceed with pre-design investigation approved in Pre-design Sampling Plan, but no earlier than August 4, 2003.
Basis of Design Report	Ninety (90) days after receipt of validated data from the pre-design investigation.
Preliminary Design (50%)	One hundred and eighty (180) days after receipt of validated data from the pre-design investigation or sixty (60) days after approval of the Basis of Design, whichever is later..
Pre-Final Design (90%)	Ninety (90) days after receipt of comments from EPA and WDNR on the Preliminary Design for that phase.
Final Design (100%)	Thirty (30) days after receipt of comments from EPA and WDNR on the Pre-Final Design for that phase.