

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF WISCONSIN

UNITED STATES OF AMERICA and the
STATE OF WISCONSIN

Plaintiffs,

v.

P. H. GLATFELTER COMPANY and
WTM I COMPANY
(f/k/a Wisconsin Tissue Mills Inc.),

Defendants.

CIVIL ACTION NO. 03-C-0949

The Honorable Lynn Adelman

**AMENDED CONSENT DECREE
FOR REMEDIAL DESIGN AND REMEDIAL ACTION AT OPERABLE UNIT 1 OF
THE LOWER FOX RIVER AND GREEN BAY SITE**

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**AMENDED CONSENT DECREE
FOR REMEDIAL DESIGN AND REMEDIAL ACTION AT OPERABLE UNIT 1 OF
THE LOWER FOX RIVER AND GREEN BAY SITE**

I. BACKGROUND

A. The United States of America (“United States”), on behalf of the Administrator of the United States Environmental Protection Agency (“EPA”), and the State of Wisconsin (the “State”), on behalf of the Wisconsin Department of Natural Resources (“WDNR”), filed a Complaint in this matter pursuant to Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. §§ 9606 and 9607.

B. The Plaintiffs' Complaint seeks, inter alia: (i) reimbursement of certain costs incurred by the United States and the State for response actions at the Lower Fox River and Green Bay Site (the “Site,” as defined below) in Northeastern Wisconsin, together with accrued interest; and (ii) performance of response work by the defendants at Operable Unit 1 (“OU1,” as defined below) of the Site consistent with the National Contingency Plan, 40 C.F.R. Part 300 (as amended) (the “NCP”).

C. In accordance with the NCP and Section 121(f)(1)(F) of CERCLA, 42 U.S.C. § 9621(f)(1)(F), the State was notified of negotiations with potentially responsible parties regarding the implementation of the remedial design and the remedial action for OU1. The State has been an active participant in such negotiations and is a party to this Consent Decree.

D. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. § 9622(j)(1), EPA has notified the appropriate natural resource trustees (the “Trustees”), as represented by the Fox River/Green Bay Natural Resource Trustee Council, of negotiations with potentially responsible parties regarding the releases of hazardous substances that may have resulted in injuries to natural resources under Federal, State, and Tribal trusteeship at the Site. The Trustees have

participated in the negotiation of this Consent Decree, and support this Consent Decree, as indicated by the Trustee Council Resolution attached to this Consent Decree as Appendix A.

E. EPA, WDNR, and the Trustees are parties to several Site-specific Memoranda of Agreement, as “Inter-Governmental Partners” sharing a “mutual goal of remediating and/or responding to hazardous substances releases and threats of releases to, and restoring injured and potentially injured natural resources in, [the Site area].” The Inter-Governmental Partners' founding Memorandum of Agreement recognized that WDNR would have “a leadership role, in full partnership with EPA, in exercising response authority” at the Site, and the Plaintiffs intend to continue that cooperative relationship as to actions required under this Consent Decree.

F. The defendants that have entered into this Consent Decree (“Settling Defendants,” as defined below) do not admit any liability to the Plaintiffs, to the Trustees, or to any other party arising out of the transactions or occurrences alleged in the Complaint, nor do they acknowledge that the release or threatened release of hazardous substance(s) at or from the Site constitutes an imminent or substantial endangerment to the public health or welfare or the environment.

G. In response to a release or a substantial threat of a release of a hazardous substance(s) at or from the Site, WDNR in 1998 commenced a Remedial Investigation and Feasibility Study (“RI/FS”) for the Site pursuant to 40 C.F.R. § 300.430, with funding and technical assistance from EPA. In December 2002, WDNR completed a Remedial Investigation (“RI”) Report and a Final Feasibility Study (“FS”) for the Site.

H. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, notice of the completion of the FS and of the proposed plan for remedial action was published in major local newspapers of general circulation in the Fox River Valley. WDNR and EPA provided an opportunity for written and oral comments from the public on the proposed plan for remedial action. A copy of

the transcript of the public meeting is available to the public as part of the administrative record upon which WDNR and EPA based the selection of the response action.

I. The decision by WDNR and EPA on the remedial action to be implemented at OU1 at the Site is embodied in a Record of Decision, executed by WDNR and EPA in December 2002 (the “2002 ROD”) and a Record of Decision Amendment, executed by WDNR and EPA in June 2008 (the “2008 ROD Amendment”). The 2002 ROD and the 2008 ROD Amendment both include an explanation of significant differences between the final remedial action plan and the proposed plan as well as a responsiveness summary to the public comments. Notice of the 2002 ROD and the 2008 ROD Amendment was published in accordance with Section 117(b) of CERCLA. As specified below, the 2002 ROD and the 2008 ROD Amendment are collectively referred to herein as the “ROD.”

J. Based on the information presently available to EPA and WDNR, EPA and WDNR believe that the Response Work (as defined below) will be properly and promptly conducted by the Settling Defendants if conducted in accordance with the requirements of this Consent Decree and its appendices.

K. Solely for the purposes of Section 113(j) of CERCLA, the remedial action selected by the ROD and the Response Work to be performed by the Settling Defendants shall constitute a response action taken or ordered by the President.

L. The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and implementation of this Consent Decree will expedite the cleanup of OU1 and will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the Settling Defendants. Solely for the purposes of this Consent Decree and the underlying Complaint, Settling Defendants waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. Settling Defendants shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

III. PARTIES BOUND

2. This Consent Decree applies to and is binding upon the United States and the State and upon Settling Defendants and their successors and assigns. Any change in ownership or corporate status of a Settling Defendant including, but not limited to, any transfer of assets or real or personal property, shall in no way alter such Settling Defendant's responsibilities under this Consent Decree.

3. Settling Defendants shall provide a copy of this Consent Decree to each contractor hired to perform the Response Work required by this Consent Decree and to each person representing any Settling Defendant with respect to OU1 or the Response Work and shall condition all contracts entered into hereunder upon performance of the Response Work in conformity with the terms of this Consent Decree. Settling Defendants or their contractors shall provide written notice of the Consent Decree to all subcontractors hired to perform any portion of the Response Work required by this Consent Decree. Settling Defendants shall nonetheless be responsible for ensuring that their contractors and subcontractors perform the Response Work

contemplated herein in accordance with this Consent Decree. With regard to the activities undertaken pursuant to this Consent Decree, each contractor and subcontractor shall be deemed to be in a contractual relationship with the Settling Defendants within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3).

IV. DEFINITIONS

4. Unless otherwise expressly provided herein, terms used in this Consent Decree which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601-9675.

“Consent Decree” shall mean this Amended Consent Decree and all appendices attached hereto (listed in Section XXXI). In the event of conflict between this Amended Consent Decree and any appendix, this Amended Consent Decree shall control.

“Day” shall mean a calendar day unless expressly stated to be a working day. “Working day” shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

“Date of Lodging” shall mean October 1, 2003, the day on which the original version of the Consent Decree was lodged with the Court.

“Date of Lodging of the Amended Consent Decree” shall mean the day on which the Amended Consent Decree is lodged with the Court.

“DOI” shall mean the United States Department of the Interior and any successor departments or agencies of the United States.

“DOI Past Cost Payments” shall mean the payments to be made to the DOI NRDAR Fund under Subparagraph 52.a.(ii) (Initial Payments to the United States) of this Consent Decree to reimburse DOI for a portion of its past natural resource damage assessment costs related to the Site.

“DOJ” shall mean the United States Department of Justice and any successor departments or agencies of the United States.

“Effective Date” shall be the effective date of this Consent Decree as provided by Section XXIX.

“EPA” shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

“EPA Past Cost Payments” shall mean the payments to be made to the Fox River Site Special Account within the EPA Hazardous Substance Superfund under Subparagraph 52.a.(i) (Initial Payments to the United States) of this Consent Decree to reimburse EPA for a portion of its past response costs related to the Site.

“Force Majeure Event,” for purposes of this Consent Decree, shall mean any event arising from causes beyond the control of the Settling Defendants, of any entity controlled by Settling Defendants, or of Settling Defendants' contractors or subcontractors, that delays or prevents the performance of any obligation under this Consent Decree despite Settling Defendants' best efforts to fulfill the obligation. The requirement that the Settling Defendants exercise “best efforts to fulfill the obligation” includes using best efforts to anticipate any potential Force Majeure Event and best efforts to address the effects of any potential Force

Majeure Event (i) as it is occurring and (ii) following the potential Force Majeure Event, such that the delay is minimized to the greatest extent possible.

“Fox River OU1 Disbursement Special Account” or the “Disbursement Special Account” shall mean the disbursement special account established for OU1 by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. §9622(b)(3), and this Consent Decree.

“Fox River Site Special Account” shall mean the special account established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3) .

“Fox River OU1 Escrow Account” or the “Escrow Account” shall mean the escrow account trust fund established for OU1 by the Settling Defendants pursuant to this Consent Decree.

“Institutional Controls” shall mean all response activities to implement institutional control requirements under the ROD.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

“Interest Earned” shall mean interest earned on amounts in the Disbursement Special Account, which shall be computed monthly at a rate based on the annual return on investments of the Hazardous Substance Superfund. The applicable rate of interest shall be the rate in effect at the time the interest accrues.

“July 2003 AOC” shall mean the Administrative Order on Consent between WTM I Company, EPA, and WDNR, captioned In the matter of the Lower Fox River and the Green Bay

Site, Docket No. V-W-'03-C-745 (the “July 2003 AOC”). The July 2003 AOC is attached hereto as Appendix F.

“Long Term Monitoring” shall mean all response activities to implement long term monitoring requirements under the ROD.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“NRD Commitment” shall mean the \$3,000,000 committed to natural resource restoration efforts under Paragraph 52 (Initial Payments to Plaintiffs) and Paragraph 53 (Subsequent Payments for Natural Resource Restoration).

“NRDAR Fund” shall mean DOI’s Natural Resource Damage Assessment and Restoration Fund.

“Operation and Maintenance” or “O & M” shall mean all activities required to maintain the effectiveness of the Remedial Action as required under the Operation and Maintenance Plan approved or developed by the Response Agencies pursuant to this Consent Decree and the Statements of Work.

“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 for the Site, a copy of which is attached hereto as Appendix G.

“Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral or an upper case letter.

“Parties” shall mean the United States, the State of Wisconsin, and the Settling Defendants.

“Performance Standards” shall mean the selected remedy requirements and cleanup standards for measuring the achievement of the goals of the Remedial Action, as set forth in Section XI of the 2008 ROD Amendment and Section II of the SOW for Remedial Action.

“Plaintiffs” shall mean the United States and the State of Wisconsin.

“Post-Remedy Institutional Controls Work” shall mean all response activities to implement institutional controls requirements under the ROD and the Institutional Controls Plan after Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b.

“Post-Remedy Monitoring” shall mean all response activities to implement Long Term Monitoring requirements under the ROD and the Final Operation and Maintenance Plan after Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b.

“RCRA” shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901 et seq. (also known as the Resource Conservation and Recovery Act).

“Record of Decision” or “ROD” shall mean, collectively: (i) the Record of Decision relating to OU1 at the Site signed in December 2002 by the Deputy Administrator of the Water Division of WDNR and by the Director of the Superfund Division of EPA Region 5, and all attachments thereto (hereinafter referred to as the “2002 ROD”); and (ii) the Record of Decision Amendment relating to OU1 at the Site signed in June 2008 by the Deputy Administrator of the Water Division of WDNR and by the Director of the Superfund Division of EPA Region 5, and all attachments thereto (hereinafter referred to as the “2008 ROD Amendment”). A copy of the

2002 ROD (excluding the ROD Appendices) is attached as Appendix H and a copy of the 2008 ROD Amendment (excluding the ROD Appendices) is attached as Appendix H1. To the extent that there is any inconsistency between the 2002 ROD and the 2008 ROD Amendment, the 2008 ROD Amendment shall govern.

“Remedial Action” shall mean those activities (except for Operation and Maintenance, Post-Remedy Institutional Controls Work, and Post-Remedy Monitoring), to be undertaken by the Settling Defendants to implement the ROD requirements for OU1, in accordance with the SOW, the final Remedial Design Work Plan, the final Remedial Action Work Plan, and other plans approved by the Response Agencies. For the purpose of this Consent Decree, Remedial Action shall not include any response action required solely under Section XV (Emergency Response).

“Remedial Action Work Plan” shall mean the document developed pursuant to Paragraph 14 of this Consent Decree and approved by the Response Agencies, and any amendments thereto.

“Remedial Design” shall mean those activities to be undertaken by Settling Defendant WTM I Company to conduct predesign investigations and to develop the final plans and specifications for the Remedial Action for OU1 pursuant to the July 2003 AOC and the Remedial Design Work Plan.

“Remedial Design Work Plan” shall mean the document described by Paragraph 12 of this Consent Decree and approved by the Response Agencies, and any amendments thereto.

“Response Agencies” shall mean WDNR and EPA.

“Response Work” shall mean all activities Settling Defendants are required to perform under this Consent Decree, except those required by Section XVI (Natural Resource Restoration Efforts) and Section XXVII (Retention of Records).

“Section” shall mean a portion of this Consent Decree identified by a roman numeral.

“Settling Defendants” shall mean P. H. Glatfelter Company and WTM I Company.

“Settling Defendants' Related Parties” shall mean: (i) Settling Defendants' successors, but only to the extent that the alleged liability of such person is based on the alleged liability of a Settling Defendant; (ii) Settling Defendants' former or current officers, directors, employees, or shareholders, but only to the extent that the alleged liability of such person is based on acts and/or omissions which occurred in the scope of the person's employment or capacity as an officer, director, employee, or shareholder of a Settling Defendant.

“Site” shall mean the Lower Fox River and Green Bay Site in Northeastern Wisconsin.

“Specified Future Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States and the State incur after July 1, 2003 in reviewing or developing plans, reports and other items pursuant to the July 2003 AOC and this Consent Decree, in verifying the Response Work, in implementing O&M, Institutional Controls, and Long Term Monitoring requirements required under the ROD and the SOW, or in otherwise implementing, overseeing, or enforcing this Consent Decree, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 19 of Section VIII, Section X (including, but not limited to, the cost of attorney time and any monies paid to secure access and/or to secure or implement Institutional Controls including, but not limited to, the amount of just compensation), Section XV, and Paragraph 90 of Section XXII.

“State” shall mean the State of Wisconsin.

“State Past Cost Payments” shall mean the \$10,000 payment to be made to the State under Subparagraph 52.b (Initial Payments to the State) of this Consent Decree to reimburse the State for a portion of its past response costs related to the Site.

“Statements of Work” or “SOW” shall mean: (i) the statement of work for implementation of the Remedial Design, as set forth at Appendix F to this Consent Decree, and any modifications made in accordance with the July 2003 AOC and this Consent Decree; and/or (ii) the statement of work for implementation of the Remedial Action, Institutional Controls, Long Term Monitoring, and Operation and Maintenance at the Site, as set forth in Appendix I to this Consent Decree and any modifications made in accordance with this Consent Decree.

“Supervising Contractor” shall mean the principal contractor retained by the Settling Defendants to supervise and direct the implementation of the Response Work under this Consent Decree.

“United States” shall mean the United States of America.

“Unresolved DOI Past Costs” shall mean the unreimbursed natural resource damage assessment costs that the United States has paid at or in connection with the Site (or any portion of the Site) through July 1, 2003.

“Unresolved EPA Past Costs” shall mean the unreimbursed response costs, including, but not limited to, direct and indirect costs, that the United States has paid at or in connection with the Site (or any portion of the Site) through July 1, 2003.

“Unresolved State Past Costs” shall mean the unreimbursed response costs, including, but not limited to, direct and indirect costs, that the State has paid at or in connection with the Site (or any portion of the Site) through July 1, 2003.

“Waste Material” shall mean: (i) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (ii) any pollutant or contaminant under Section 101(33), 42 U.S.C. § 9601(33); (iii) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (iv) any “hazardous substance” under Wis. Stat. § 292.01.

“WDOJ” shall mean the Wisconsin Department of Justice and any successor departments or agencies of the State.

“WDNR” shall mean the Wisconsin Department of Natural Resources and any successor departments or agencies of the State.

V. GENERAL PROVISIONS

5. Objectives of the Parties. The objectives of the Parties in entering into this Consent Decree are to protect public health and welfare and the environment by the design and implementation of certain response actions at OU1 by the Settling Defendants, to reimburse a portion of the EPA and State past costs and to reimburse all Specified Future Response Costs, to provide partial compensation for natural resource damages, and to resolve the claims of Plaintiffs against Settling Defendants as provided in this Consent Decree.

6. Commitments by Settling Defendants. Settling Defendants shall finance and perform the Response Work in accordance with this Consent Decree, the ROD, the SOW, and all work plans and other plans, standards, specifications, and schedules set forth herein or developed by Settling Defendants and approved by the Response Agencies pursuant to this Consent Decree. Settling Defendants shall also reimburse EPA and the State for a portion of their past response costs and shall reimburse EPA and the State for future response costs, as provided by this Consent Decree. Settling Defendants shall also provide partial compensation for natural resource damages, as provided herein.

7. Compliance With Applicable Law. All activities undertaken by Settling Defendants pursuant to this Consent Decree shall be performed in accordance with the requirements of all applicable federal and state laws and regulations. Settling Defendants must also comply with all applicable or relevant and appropriate requirements of all Federal and state environmental laws as set forth in the ROD and the SOW, unless the Response Agencies determine that there are grounds for invoking a waiver under 40 C.F.R. § 300.430(f)(1)(ii)(C). The activities conducted pursuant to this Consent Decree, if approved by the Response Agencies, shall be considered to be necessary and consistent with the NCP.

8. Permits.

a. As provided in Section 121(e) of CERCLA and Section 300.400(e) of the NCP, no permit shall be required for any portion of the Response Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Response Work). Where any portion of the Response Work that is not on-site requires a federal or state permit or approval, Settling Defendants shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.

b. The Settling Defendants may seek relief under the provisions of Section XIX (Force Majeure Events) of this Consent Decree for any delay in the performance of the Response Work resulting from a failure to obtain, or a delay in obtaining, any permit required for the Response Work.

c. This Consent Decree is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

VI. ESTABLISHMENT AND USE OF CERTAIN SITE-SPECIFIC ACCOUNTS

9. Generally. As provided by this Section and Appendices B and C, two separate Site-specific accounts – to be known as the Fox River OU1 Disbursement Special Account (the “Disbursement Special Account”) and the Fox River OU1 Escrow Account (the “Escrow Account”) – shall be established and managed to provide sources of funds for payment and reimbursement of particular categories of Site-related response costs and natural resource restoration costs, as specified by Paragraphs 10 and 11. The Escrow Account may be established as several accounts or sub-accounts to address the different sources and uses of the funds paid into the Escrow Account. The response costs to be paid and reimbursed from the Disbursement Special Account and the Escrow Account are expected to include, but will not be limited to, certain costs incurred by the Settling Defendants that are defined herein as “Allowable RD/RA Costs.” The natural resource restoration costs to be paid and reimbursed from the Escrow Account may include, but will not be limited to, certain costs incurred by the Settling Defendants that are defined herein as “Allowable Restoration Work Costs.” The Escrow Account shall serve as a form of financial assurance for performance of Settling Defendants’ obligations under this Consent Decree, but Settling Defendants’ performance obligations shall not be limited by the availability of funds in the Escrow Account at any time.

a. Allowable RD/RA Costs. Solely for the purpose of this Consent Decree, the term “Allowable RD/RA Costs” is defined as necessary response costs incurred and paid by Settling Defendants for the Remedial Design and the Remedial Action, excluding the following costs that shall not be eligible for payment or reimbursement as Allowable RD/RA Costs:

(1) any costs exceeding \$2 million for the contaminant delineation investigation and Remedial Design components of the Response Work, as provided by Subparagraph 8.a of Appendix C;

(2) response costs incurred or paid by the Settling Defendants pursuant to Section XV (Emergency Response);

(3) any other payments made by Settling Defendants to the Plaintiffs pursuant to this Consent Decree, including, but not limited to: (i) any direct payments to Plaintiffs under Section XVII; and (ii) any interest, stipulated penalties, or stipulated damages paid pursuant to Section XXI;

(4) attorneys' fees and costs;

(5) costs of any response activities Settling Defendants perform that are not required under, or approved by the Response Agencies pursuant to this Consent Decree;

(6) costs related to Settling Defendants' litigation, settlement, development of potential contribution claims or identification of defendants;

(7) internal costs of Settling Defendants, including but not limited to, salaries, travel, or in-kind services, except for those costs that represent the work of employees of Settling Defendants directly performing the Remedial Design or the Remedial Action;

(8) any costs incurred by Settling Defendants prior to the Effective Date, except for: (i) Remedial Design work approved by the Response Agencies; or (ii) other costs of Response Work required by this Consent Decree after the Date of Lodging; or

(9) any costs incurred by Settling Defendants pursuant to Section XX (Dispute Resolution).

b. Allowable Restoration Work Costs. Solely for the purpose of this Consent Decree, the term “Allowable Restoration Costs” is defined as necessary restoration costs incurred and paid by Settling Defendants for Approved Restoration Work (as defined by Paragraph 48), excluding the following costs that shall not be eligible for payment or reimbursement as Allowable Restoration Work Costs:

(1) any costs for work other than Approved Restoration Work;

(2) any costs exceeding the pre-approved cost ceiling set by the Statement of Work for Approved Restoration Work;

(3) any other payments made by Settling Defendants to the Plaintiffs pursuant to this Consent Decree, including, but not limited to: (i) any direct payments to Plaintiffs under Section XVII; and (ii) any interest, stipulated penalties, or stipulated damages paid pursuant to Section XXI;

(4) attorneys' fees and costs;

(5) costs of any restoration activities Settling Defendants perform that are not required under, or approved by the Plaintiffs pursuant to, this Consent Decree;

(6) costs related to Settling Defendants' litigation, settlement, development of potential contribution claims or identification of defendants;

(7) internal costs of Settling Defendants, including but not limited to, salaries, travel, or in-kind services, except for those costs that represent the work

of employees of Settling Defendants directly performing Approved Restoration Work;

(8) any costs incurred by Settling Defendants prior to the Effective Date, except for Approved Restoration Work completed pursuant to this Consent Decree; or

(9) any costs incurred by Settling Defendants pursuant to Section XX (Dispute Resolution).

10. Establishment and Management of the Disbursement Special Account. In accordance with the procedures and requirements established by the December 2001 Consent Decree in the matter captioned United States and the State of Wisconsin v. Appleton Papers Inc. and NCR Corporation, Case No. 01-C-0816 (E.D. Wis.) (the “API/NCR Decree”), the Plaintiffs shall use their best efforts to have \$10 million available for funding response action projects under the API/NCR Decree deposited in the Disbursement Special Account after the Effective Date. EPA shall establish the Disbursement Special Account as a new special account within the EPA Hazardous Substance Superfund. Subject to the terms and conditions set forth in this Consent Decree, EPA agrees to make those funds in the Disbursement Special Account, including Interest Earned on those funds in the Special Account, available for disbursement to the Escrow Account as partial reimbursement of certain Allowable RD/RA Costs. The Disbursement Special Account shall be managed as set forth in Appendix B to this Consent Decree, which is incorporated herein by reference

11. Establishment and Management of the Escrow Account. By no later than March 31, 2004, the Settling Defendants shall establish and maintain financial security in the form of the Escrow Account trust fund, from which funds shall be disbursed for payment and

reimbursement of particular categories of Site-related response costs and natural resource restoration costs. The Settling Defendants shall establish and maintain the Escrow Account with the funds required to be paid pursuant to Section XVII (Payments) below. The Escrow Account shall be managed as set forth in Appendix C to this Consent Decree, which is incorporated herein by reference. The escrow agreement establishing the Escrow Account shall be in substantially the form attached hereto as Appendix D and shall identify the manager for the Escrow Account (the “Escrow Agent”). The Settling Defendants may establish the Escrow Account (or an account or sub-account within the Escrow Account) as a Qualified Settlement Fund (or “QSF”) within the meaning of 468B-1 of the Treasury Regulations.

VII. PERFORMANCE OF THE RESPONSE WORK BY SETTLING DEFENDANTS

12. OU1 Remedial Design.

a. Settling Defendant WTM I Company shall perform the Remedial Design components of the Response Work (including predesign investigations) in accordance with the July 2003 AOC and the 2008 ROD Amendment. A copy of the July 2003 AOC is attached as Appendix F to this Consent Decree, is incorporated herein by this reference, and all requirements under the July 2003 AOC are hereby made enforceable requirements of this Consent Decree, but only as to Settling Defendant WTM I Company.

b. Settling Defendant WTM I Company shall submit the following plans and reports to the Response Agencies pursuant to the July 2003 AOC and this Paragraph: (i) a Pre-Design Sampling Work Plan; (ii) a Remedial Design Work Plan; (iii) a Basis of Design Report; (iv) a Preliminary (50%) Design; (v) a Pre-Final (90%) Design; and (vi) a Final (100%) Design. Upon approval by the Response Agencies, all submittals required by the July 2003

AOC and this Paragraph 12 shall be incorporated into and become enforceable under this Consent Decree.

c. Settling Defendant WTM I Company shall provide Settling Defendant P. H. Glatfelter Company with copies of the plans and reports identified in the preceding Subparagraph contemporaneously with their submission to the Response Agencies. Within 15 days of the date of submission, Settling Defendant P. H. Glatfelter may submit written comments on the relevant plan or submission; provided, however, that nothing in this Paragraph shall be construed as affording Settling Defendant P. H. Glatfelter Company a right to invoke or participate in any dispute resolution process under Section XX (Dispute Resolution) concerning any submittal under the July 2003 AOC.

13. Selection of Supervising Contractor.

a. All Remedial Design components of the Response Work to be performed by Settling Defendant WTM I Company pursuant to Paragraph 12 of this Consent Decree shall be under the direction and supervision of WTM I Company's Project Coordinator designated pursuant to the July 2003 AOC. All other aspects of the Response Work to be performed by Settling Defendants pursuant to Sections VII (Performance of the Response Work by Settling Defendants), VIII (Post-Remedy Response Work and Remedy Review), IX (Quality Assurance, Sampling and Data Analysis), and XV (Emergency Response) of this Consent Decree shall be under the direction and supervision of the Settling Defendants' Supervising Contractor, the selection of which shall be subject to disapproval by the Response Agencies. Within 10 days after Settling Defendant WTM I Company's submittal of the Pre-Final (90%) Design, Settling Defendants shall notify the Response Agencies in writing of the name, title, and qualifications of any contractor proposed to be the Supervising Contractor. The Response Agencies will issue a

notice of disapproval or an authorization to proceed. If at any time thereafter, Settling Defendants propose to change a Supervising Contractor, Settling Defendants shall give such notice to the Response Agencies and must obtain an authorization to proceed from the Response Agencies before the new Supervising Contractor performs, directs, or supervises any Response Work under this Consent Decree.

b. If the Response Agencies disapprove a proposed Supervising Contractor, the Response Agencies will notify Settling Defendants in writing. Settling Defendants shall submit to the Response Agencies a list of contractors, including the qualifications of each contractor, that would be acceptable to them within 30 days of receipt of the Response Agencies' disapproval of the contractor previously proposed. The Response Agencies will provide written notice of the names of any contractors that they disapprove and an authorization to proceed with respect to any of the other contractors. Settling Defendants may select any contractor from that list that is not disapproved and shall notify the Response Agencies of the name of the contractor selected within 21 days of the Response Agencies' authorization to proceed.

c. If the Response Agencies fail to provide written notice of their authorization to proceed or disapproval as provided in this Paragraph and this failure prevents the Settling Defendants from meeting one or more deadlines in a plan approved by the Response Agencies pursuant to this Consent Decree, Settling Defendants may seek relief under the provisions of Section XIX (Force Majeure Events).

14. OUI Remedial Action. The Settling Defendants shall perform all requirements under this Paragraph 14 until the Performance Standards are achieved and for so long thereafter as is otherwise required under this Consent Decree. The Settling Defendants shall commence

and continue performance of the Remedial Action in accordance with the 2008 ROD Amendment upon the Date of Lodging of the Amended Consent Decree.

a. The requirements under this Paragraph 14 shall be performed by Settling Defendants with funding from the following sources:

(1) To the extent such funds are available in the Disbursement Special Account, the Settling Defendants shall be entitled to seek disbursement from the Disbursement Special Account for reimbursement of Allowable RD/RA Costs.

(2) To the extent such funds are available in the Escrow Account and not earmarked or disbursed for other purposes under this Consent Decree, the Settling Defendants shall be entitled to seek disbursements from the Escrow Account for payment or reimbursement of Allowable RD/RA Costs.

(3) If funds are not available in the Escrow Account, or if all funds in the Escrow Account have been earmarked or disbursed for other purposes under the Consent Decree, Settling Defendants shall continue to fund and perform all requirements under this Paragraph 14 until the Performance Standards are achieved and for so long thereafter as is otherwise required under the Consent Decree.

b. Within 90 days after the approval of the Final Design submittal described by the Statement of Work appended to the July 2003 AOC, but no earlier than 30 days after the Effective Date, the Settling Defendants shall submit to the Response Agencies a work plan for the performance of the Remedial Action (the “Remedial Action Work Plan”). The Remedial Action Work Plan shall provide for construction and implementation of the remedy set forth in the ROD such that the Performance Standards will be achieved, in accordance with this Consent Decree, the ROD, the SOW, and the design plans and specifications developed by Settling

Defendant WTM I Company under Paragraph 12 and approved by the Response Agencies.

Upon its approval by the Response Agencies, the Remedial Action Work Plan shall be incorporated into and become enforceable under this Consent Decree.

c. The Remedial Action Work Plan shall include the following: (i) an updated schedule for implementing all Remedial Action tasks identified in the final design submittal, incorporating any refinements to the Final Project Schedule submitted under the July 2003 AOC and Paragraph 12; (ii) any refinements to the Final Health and Safety Plan, the Final Contingency Plan, the Final Sediment Removal Verification Plan, and the Capital and Operation and Maintenance Cost Estimate submitted under the July 2003 AOC and Paragraph 12; (iii) a Final Construction Quality Assurance Project Plan; (iv) an Institutional Controls Plan; (v) a Final Operation and Maintenance Plan (including a plan for Long Term Monitoring); (vi) a schedule for submitting any other Remedial Action Plans; and (vii) the initial formulation of the Settling Defendants' Remedial Action Project Team (including, but not limited to, the Supervising Contractor).

d. Upon approval of the Remedial Action Work Plan by the Response Agencies, Settling Defendants shall perform the activities required under the Remedial Action Work Plan. The Settling Defendants shall submit to the Response Agencies all plans, submittals, or other deliverables required under the approved Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XII (Response Agencies' Approval of Plans and Other Submissions). Unless otherwise directed by the Response Agencies, Settling Defendants shall not commence physical Remedial Action activities at OU1 prior to approval of the Remedial Action Work Plan. The Settling Defendants shall implement

the Remedial Action as set forth in the approved Remedial Action Work Plan until the Performance Standards are achieved.

e. After Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b, the Settling Defendants shall continue to implement the Institutional Controls Plan and the Final Operation and Maintenance Plan for so long as required by those plans.

15. Modification of the SOW or Related Work Plans.

a. Subject to Subparagraph 15.c below, if the Response Agencies determine that modification to the work specified in the SOW and/or in work plans developed pursuant to the SOW is necessary to achieve and maintain the Performance Standards or to carry out and maintain the effectiveness of the remedy set forth in the ROD, the Response Agencies may require that such modification be incorporated in the SOW and/or such work plans; provided, however, that a modification may only be required pursuant to this Paragraph to the extent that it is consistent with the scope of the remedy selected in the ROD.

b. For the purposes of this Paragraph 15 and Paragraph 44 only, the “scope of the remedy selected in the ROD” is, as described by Section XI of the 2008 ROD Amendment: (i) remediating sediment in OU1 with PCB concentrations greater than the 1.0 ppm remedial action level (“RAL”) or achieving a surface weighted average concentration (“SWAC”) of 0.25 ppm or less for all of OU1 after addressing such sediment either by the primary remedial approach (sediment removal by dredging) or by one of the alternate remedial approaches (engineered cap or sand cover) if the eligibility criteria specified by Section XI of the 2008 ROD Amendment will be met; (ii) dewatering of the sediment that is removed; (iii) treatment of the water collected during the dewatering process; (iv) off-Site disposal of the

removed sediment after dewatering; (v) demobilization and site restoration; (vi) Operation and Maintenance activities (including cap maintenance); and (vii) Institutional Controls and Long Term Monitoring.

c. If Settling Defendants object to any modification determined by the Response Agencies to be necessary pursuant to this Paragraph, they may seek dispute resolution pursuant to Section XX (Dispute Resolution), Paragraph 65 (record review). The SOW and/or related work plans shall be modified in accordance with final resolution of the dispute.

d. Settling Defendants shall implement any work required by any modifications incorporated in the SOW and/or in work plans developed pursuant to the SOW in accordance with this Paragraph.

e. Nothing in this Paragraph shall be construed to limit the Response Agencies' authority to require performance of further response actions as otherwise provided in this Consent Decree.

16. Settling Defendants acknowledge and agree that nothing in this Consent Decree, the SOW, the Remedial Design Work Plan, or Remedial Action Work Plan constitutes a warranty or representation of any kind by Plaintiffs that compliance with the work requirements set forth in the SOW and the Work Plans will achieve the Performance Standards.

17. Settling Defendants shall, prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving facility's state and to the Response Agencies' Project Coordinators of such shipment of Waste Material. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

a. The Settling Defendants shall include in the written notification the following information, where available: (i) the name and location of the facility to which the Waste Material is to be shipped; (ii) the type and quantity of the Waste Material to be shipped; (iii) the expected schedule for the shipment of the Waste Material; and (iv) the method of transportation. The Settling Defendants shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

b. The identity of the receiving facility and state will be determined by the Settling Defendants following the award of the contract for Remedial Action construction. The Settling Defendants shall provide the information required by Subparagraph 17.a as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

VIII. POST-REMEDY RESPONSE WORK AND REMEDY REVIEW

18. O&M and Post-Remedy Institutional Controls. After Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b, Settling Defendants shall perform O&M and Post-Remedy Institutional Controls Work as required by the ROD, the Final Operation and Maintenance Plan, and the Institutional Controls Plan. In the event that Settling Defendants fail to perform O&M and Post-Remedy Institutional Controls Work as required by this Paragraph, and EPA or, as appropriate, the State takes such action instead, Settling Defendants shall reimburse EPA and the State for all costs of the response action not inconsistent with the NCP pursuant to Paragraph 54 (Payment of Specified Future Response Costs).

19. Periodic Remedy Review and Post-Remedy Monitoring. Settling Defendants shall conduct any studies and investigations as requested by the Response Agencies, in order to permit the Response Agencies to conduct reviews of whether the Remedial Action is protective

of human health and the environment at least every five years as required by Section 121(c) of CERCLA and any applicable regulations. Such studies and investigations shall include, but shall not be limited to, Post-Remedy Monitoring after Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b. In the event that Settling Defendants fail to conduct such studies and investigations as required by this Paragraph, and EPA or, as appropriate, the State takes such action instead, Settling Defendants shall reimburse EPA and the State for all costs of the response action not inconsistent with the NCP pursuant to Paragraph 54 (Payment of Specified Future Response Costs).

20. Further Response Actions.

a. If the Response Agencies determine, at any time, that the Remedial Action is not protective of human health and the environment, the Response Agencies may select further response actions for OU1 in accordance with the requirements of CERCLA and the NCP.

b. Settling Defendants and, if required by Sections 113(k)(2) or 117 of CERCLA, the public, will be provided with an opportunity to comment on any further response actions proposed by the Response Agencies as a result of the review conducted pursuant to Section 121(c) of CERCLA and to submit written comments for the record during the comment period.

c. Notwithstanding Paragraph F of Section I (Background), Settling Defendants hereby agree and covenant that the Plaintiffs shall not have to prove, and that Settling Defendants shall not contest, the following facts with respect to OU1 in response to any administrative order or in any judicial proceeding relating to any further response action the Response Agencies select for OU1 to the extent that the reopener conditions in Paragraph 86 or

Paragraph 87 (United States' reservations of liability based on unknown conditions or new information) are satisfied:

(1) Each Settling Defendant is a person who at the time of disposal of a hazardous substance owned or operated a facility from which such hazardous substances were disposed of, and from which there have been releases of hazardous substances which caused the incurrence of response costs for OU1; and

(2) Each Settling Defendant is a person who by contract, agreement, or otherwise arranged for the disposal or treatment of hazardous substances owned or possessed by the Settling Defendant, by another party or entity, at a facility owned or operated by another party or entity and containing such hazardous substances, from which there have been releases of hazardous substances which caused the incurrence of response costs for OU1.

d. Except as provided by Subparagraph 20.c, nothing herein shall constitute a waiver of any claim or defense by any Party with respect to any such further response action.

IX. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

21. Settling Defendants shall use quality assurance, quality control, and chain of custody procedures for all treatability, design, compliance and monitoring samples in accordance with “EPA Requirements for Quality Assurance Project Plans (QA/R5)” (EPA/240/B-01/003, March 2001), “Guidance for Quality Assurance Project Plans (QA/G-5)” (EPA/600/R-98/018, February 1998), and subsequent amendments to such guidelines upon notification by the Response Agencies to Settling Defendants of such amendment. Amended guidelines shall apply only to procedures conducted after such notification. Prior to the commencement of any monitoring project under this Consent Decree, Settling Defendants shall submit to the Response

Agencies for approval a Quality Assurance Project Plan (“QAPP”) that is consistent with the SOW, the NCP and applicable guidance documents. If relevant to the proceeding, the Parties agree that validated sampling data generated in accordance with the QAPP(s) and reviewed and approved by the Response Agencies shall be admissible as evidence, without objection, in any proceeding under this Decree. Settling Defendants shall ensure that the Response Agencies' personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Settling Defendants in implementing this Consent Decree. In addition, Settling Defendants shall ensure that such laboratories shall analyze all samples submitted by the Response Agencies pursuant to the QAPP for quality assurance monitoring. Settling Defendants shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Decree perform all analyses according to accepted EPA methods. Accepted EPA methods consist of those methods which are documented in the “Contract Lab Program Statement of Work for Inorganic Analysis” and the “Contract Lab Program Statement of Work for Organic Analysis,” dated February 1988, and any amendments made thereto during the course of the implementation of this Decree; however, upon approval by the Response Agencies, Settling Defendants may use other analytical methods which are as stringent as or more stringent than the CLP-approved methods. Settling Defendants shall ensure that all laboratories they use for analysis of samples taken pursuant to this Consent Decree participate in an EPA or EPA-equivalent QA/QC program. Settling Defendants shall only use laboratories that have a documented Quality System which complies with ANSI/ASQC E4-1994, “Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs,” (American National Standard, January 5, 1995), and “EPA Requirements for Quality Management Plans (QA/R-2),” (EPA/240/B-01/002, March 2001) or

equivalent documentation as determined by the Response Agencies. The Response Agencies may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (“NELAP”) as meeting the Quality System requirements. Settling Defendants shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Decree will be conducted in accordance with the procedures set forth in the QAPP approved by the Response Agencies.

22. Upon request, the Settling Defendants shall allow split or duplicate samples to be taken by the Response Agencies or their authorized representatives. Settling Defendants shall notify the Response Agencies not less than 15 days in advance of any sample collection activity unless shorter notice is agreed to by the Response Agencies. In addition, the Response Agencies shall have the right to take any additional samples that the Response Agencies deem necessary. Upon request, the Response Agencies shall allow the Settling Defendants to take split or duplicate samples of any samples they take as part of the Plaintiffs' oversight of the Settling Defendants' implementation of the Response Work.

23. Settling Defendants shall submit to the Response Agencies copies of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Settling Defendants with respect to OU1 and/or the implementation of this Consent Decree unless the Response Agencies agree otherwise.

24. Notwithstanding any provision of this Consent Decree, the United States and the State hereby retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA and any other applicable statutes or regulations.

X. ACCESS AND INSTITUTIONAL CONTROLS

25. If any property where access and/or land/water use restrictions are needed to implement this Consent Decree is owned or controlled by any of the Settling Defendants, such Settling Defendants shall:

a. commencing on the Date of Lodging of this Consent Decree, provide the Plaintiffs and their representatives, including the Response Agencies and their contractors, with access at all reasonable times to such property, for the purpose of conducting any activity related to this Consent Decree including, but not limited to, the following activities:

- (1) monitoring the Response Work;
- (2) verifying any data or information submitted to the Plaintiffs;
- (3) conducting investigations relating to contamination at or near the Site;
- (4) obtaining samples;
- (5) assessing the need for, planning, or implementing additional response actions at or near the Site;
- (6) implementing the Response Work pursuant to the conditions set forth in Paragraph 90 of this Consent Decree;
- (7) inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Settling Defendants or their agents, consistent with Section XXVI (Access to Information);
- (8) assessing Settling Defendants' compliance with this Consent Decree; and

(9) determining whether the Site or other property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or pursuant to this Consent Decree;

b. commencing on the Date of Lodging of this Consent Decree, refrain from using the Site, or such other property, in any manner that would interfere with or adversely affect the integrity or protectiveness of the remedial measures to be implemented pursuant to this Consent Decree.

c. if requested in writing by the Response Agencies, execute and record in the appropriate County land records office, an easement, running with the land, that: (i) grants a right of access for the purpose of conducting any activity related to this Consent Decree including, but not limited to, those activities listed in Paragraph 25.a of this Consent Decree, and (ii) grants the right to enforce the land/water use restrictions listed in Paragraph 25.b of this Consent Decree, or other restrictions that the Response Agencies determine are necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Consent Decree. Such Settling Defendants shall grant the access rights and the rights to enforce the land/water use restrictions to: (i) the United States, on behalf of EPA, and its representatives, (ii) the State, on behalf of WDNR, and its representatives, (iii) the other Settling Defendants and their representatives, and/or (iv) other appropriate grantees identified by the Response Agencies. Such Settling Defendants shall, within 45 days after receiving a written request from the Response Agencies, submit to the response Agencies for review and approval with respect to such property:

(1) a draft easement that is enforceable under the laws of the State of Wisconsin, free and clear of all prior liens and encumbrances (except as approved

by EPA), and acceptable under the Attorney General's Title Regulations promulgated pursuant to 40 U.S.C. § 255; and

(2) a current title commitment or report prepared in accordance with the U.S. Department of Justice's Title Standards 2001 (the "Standards").

Within 15 days of EPA's approval and acceptance of the easement, such Settling Defendants shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, take the steps necessary to record the easement with the appropriate County land records office. Within 30 days of recording the easement, such Settling Defendants shall provide EPA with final title evidence acceptable under the Standards, and a certified copy of the original recorded easement showing the clerk's recording stamps.

26. If any property where access and/or land/water use restrictions are needed to implement this Consent Decree is owned or controlled by persons other than any of the Settling Defendants, Settling Defendants shall use best efforts to secure from such persons:

a. an agreement to provide access thereto for Settling Defendants, as well as for the Plaintiffs, on behalf of the response Agencies, as well as their representatives (including contractors), for the purpose of conducting any activity related to this Consent Decree including, but not limited to, those activities listed in Paragraph 25.a of this Consent Decree;

b. an agreement, enforceable by the Settling Defendants and the Plaintiffs, to abide by the obligations and restrictions established by Paragraph 25.b of this Consent Decree, or that are otherwise necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Consent Decree; and

c. if requested in writing by the Response Agencies, the execution and recordation in the appropriate County land records office, of an easement, running with the land, that: (i) grants a right of access for the purpose of conducting any activity related to this Consent Decree including, but not limited to, those activities listed in Paragraph 25.a of this Consent Decree, and (ii) grants the right to enforce the land/water use restrictions listed in Paragraph 25.b of this Consent Decree, or other restrictions that the Response Agencies determine are necessary to implement, ensure non-interference with, or ensure the protectiveness of the remedial measures to be performed pursuant to this Consent Decree. The access rights and/or rights to enforce land/water use restrictions shall be granted to: (i) the United States, on behalf of EPA, and its representatives, (ii) the State, on behalf of WDNR, and its representatives, (iii) the other Settling Defendants and their representatives, and/or (iv) other appropriate grantees. Settling Defendants shall, within 45 days after receiving a written request from the Response Agencies, submit to the Response Agencies for review and approval with respect to such property:

(1) a draft easement that is enforceable under the laws of the State of Wisconsin, free and clear of all prior liens and encumbrances (except as approved by the Response Agencies), and acceptable under the Attorney General's Title Regulations promulgated pursuant to 40 U.S.C. § 255; and

(2) a current title commitment or report prepared in accordance with the U.S. Department of Justice's Title Standards 2001 (the "Standards").

Within 15 days of EPA's approval and acceptance of the easement, Settling Defendants shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment or report to affect the title adversely, take the steps necessary to record the easement with the appropriate County land records office. Within 30 days of the recording of

the easement, Settling Defendants shall provide EPA with final title evidence acceptable under the Standards, and a certified copy of the original recorded easement showing the clerk's recording stamps.

27. For purposes of Paragraph 26 of this Consent Decree, "best efforts" includes the payment of reasonable sums of money in consideration of access, access easements, land/water use restrictions, and/or restrictive easements. If any access or land/water use restriction agreements required by Paragraphs 26.a or 26.b of this Consent Decree are not obtained within 45 days of the Effective Date of this Consent Decree, or if any access easements or restrictive easements required by Paragraph 26.c of this Consent Decree are not submitted to the Response Agencies in draft form within 45 days of receipt of a written request by the Response Agencies, then Settling Defendants shall promptly notify the United States in writing, and shall include in that notification a summary of the steps that Settling Defendants have taken to attempt to comply with Paragraph 26 of this Consent Decree. The United States and the State may, as they deem appropriate, assist Settling Defendants in obtaining access or land/water use restrictions, either in the form of contractual agreements or in the form of easements running with the land. Settling Defendants shall reimburse the United States and the State, as Specified Future Response Costs, for all costs incurred, direct or indirect, by the United States or the State in obtaining such access and/or land/water use restrictions including, but not limited to, the cost of attorney time and the amount of monetary consideration paid or just compensation.

28. If any property where access and/or land/water use restrictions are needed to implement this Consent Decree is owned or controlled by the Plaintiffs, the Plaintiffs shall use best efforts to assist the Settling Defendants in securing necessary access and/or land/water use restrictions.

29. If the Response Agencies determine that land/water use restrictions in the form of state or local laws, regulations, ordinances or other governmental controls are needed to implement the remedy selected in the ROD, ensure the integrity and protectiveness thereof, or ensure non-interference therewith, Settling Defendants shall cooperate with the Response Agencies' efforts to secure such governmental controls.

30. Notwithstanding any provision of this Consent Decree, the United States and the State retain all of their access authorities and rights, as well as all of their rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA and any other applicable statute or regulations.

XI. REPORTING REQUIREMENTS

31. Monthly RD/RA Progress Reports.

a. In addition to any other requirement of this Consent Decree, starting with the first month after the Date of Lodging, Settling Defendants shall submit two copies of written Monthly RD/RA Progress Reports to each of the Response Agencies that shall: (i) describe the actions which have been taken toward achieving compliance with this Consent Decree during the previous month; (ii) include a summary of all results of sampling and tests and all other data received or generated by Settling Defendants or their contractors or agents in the previous month; (iii) identify all work plans, plans and other deliverables required by this Consent Decree completed and submitted during the previous month; (iv) describe all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next month and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts and Pert charts; (v) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the

future schedule for implementation of the Response Work, and a description of efforts made to mitigate those delays or anticipated delays; (vi) include any modifications to the work plans or other schedules that Settling Defendants have proposed to the Response Agencies or that have been approved by the Response Agencies; and (vii) describe all activities undertaken in support of the Community Relations Plan during the previous month and those to be undertaken in the next month. Settling Defendants shall submit these progress reports to the Response Agencies by the tenth day of every month following the Date of Lodging until Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b. During performance of the Remedial Design, the Monthly RD/RA Progress Reports shall include all information required by Paragraph 38 of the July 2003 AOC and shall thereby satisfy the requirement to submit a monthly progress report under the July 2003 AOC and this Consent Decree. If requested by the Response Agencies, Settling Defendants shall also provide briefings for the Response Agencies to discuss the progress of the Response Work.

b. The Settling Defendants shall notify the Response Agencies of any change in the schedule described in the Monthly RD/RA Progress Report for the performance of any activity, including, but not limited to, data collection and implementation of work plans, no later than seven days prior to the performance of the activity.

32. Quarterly Reports. Starting with the second quarter of 2004, the Settling Defendants shall submit Quarterly Reports under this Paragraph to assist the Plaintiffs in monitoring the funding and budgeting of the Response Work and any Approved Restoration Work.

a. The Settling Defendants shall submit Quarterly Reports on a quarterly basis for so long as the Remedial Action continues under this Consent Decree, until Certification

of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b. For a given calendar year, the Report for the first calendar quarter shall be submitted by no later than May 1 of that calendar year, the Report for the second calendar quarter shall be submitted by no later than August 1 of that calendar year, the Report for the third calendar quarter shall be submitted by no later than November 1 of that calendar year, and the Report for the fourth calendar quarter shall be submitted by no later than February 1 of the next calendar year.

b. Each Quarterly Report shall:

(1) provide a complete and accurate written cost summary of all Allowable RD/RA Costs submitted to the Escrow Agent for payment from the Escrow Account during the reporting period, certified in accordance with Subparagraph 32.d;

(2) specify any amount requested as a periodic disbursement from the Disbursement Special Account to the Escrow Account pursuant to Paragraph 10 and Appendix B;

(3) provide a complete and accurate written cost summary of all Allowable Restoration Work Costs submitted to the Escrow Agent for payment from the Escrow Account during the reporting period, certified in accordance with Subparagraph 32.d;

(4) list and total all amounts requested and/or disbursed during the reporting period as payments or reimbursements from the Escrow Account pursuant to Paragraph 11 and Appendix C;

(5) indicate the approximate balance of the Escrow Account at the end of the reporting period; and

(6) summarize all Response Work and all Approved Restoration Work funded and performed under the Consent Decree during the reporting period.

c. In addition, prior to the Certification of Completion of Remedial Action, the third Quarterly Report of each calendar year (that is, the report due on or before November 1) shall project whether the total balance present in or committed by a secured obligation to the Escrow Account, including all sub-accounts, is likely to be sufficient to fund the completion of the Remedial Action, and to leave a remaining balance of \$4,000,000 for work in the year 2010 and thereafter, including work required by Section VIII of this Amended Consent Decree (Post-Remedy Response Work and Remedy Review), after making all other payments and reimbursements from those Accounts that are required under the Consent Decree; if the balance is projected to be insufficient, that third Quarterly Report shall specify the amount of additional funding sufficient to complete the Remedial Action and to leave a remaining balance of \$4,000,000 for work in the year 2010 and thereafter, including work required by Section VIII of this Amended Consent Decree (Post-Remedy Response Work and Remedy Review).

d. Each Quarterly Report shall contain the following certification signed by the Chief Financial Officer of a Settling Defendant or by an Independent Certified Public Accountant retained by the Settling Defendants:

“To the best of my knowledge, after thorough investigation and review of Settling Defendants' documentation of unreimbursed costs incurred and paid for the work summarized in this report that was performed pursuant to the Consent Decree, I certify that the information contained in or accompanying this Quarterly Report is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.”

Each Quarterly Report shall include a list of the cost documents that the certifying individuals reviewed in support of the Quarterly Cost Summary Report. Upon request by the Plaintiffs,

Settling Defendants shall provide the Plaintiffs any additional information that the Plaintiffs deem necessary for review of a Quarterly Report.

e. If the Plaintiffs find that a Quarterly Report includes a mathematical error, an accounting error, costs that are not Allowable Response Work Costs or Allowable Restoration Work Costs, costs that are inadequately documented, or costs covered by a prior Quarterly Report, the Plaintiffs will notify Settling Defendants and the Settling Defendants shall cure the deficiency by submitting a revised Quarterly Report.

33. Release Reporting.

a. Upon the occurrence of any event during performance of the Response Work that Settling Defendants are required to report pursuant to Section 103 of CERCLA or Section 304 of the Emergency Planning and Community Right-to-Know Act (“EPCRA”), Settling Defendants shall within 24 hours of the onset of such event orally notify the Response Agencies' Project Coordinators or the Response Agencies' Alternate Project Coordinators (in the event of the unavailability of the Project Coordinator). If neither the EPA Project Coordinator nor the EPA Alternate Project Coordinator is available, oral notification notice shall be given to the Emergency Response Section, Region 5, United States Environmental Protection Agency. These reporting requirements are in addition to the reporting required by CERCLA Section 103 or EPCRA Section 304.

b. Within 20 days of the onset of such an event, Settling Defendants shall furnish to Plaintiffs a written report, signed by the Settling Defendants' Project Coordinator, setting forth the events which occurred and the measures taken, and to be taken, in response thereto. Within 30 days of the conclusion of such an event, Settling Defendants shall submit a report to Plaintiffs setting forth all actions taken in response thereto.

34. Submission and Certification of Reports.

a. Settling Defendants shall submit two hard copies of all plans, reports, and data required by the SOW, the Remedial Design Work Plan, the Remedial Action Work Plan, or any other approved plans to each of the Response Agencies in accordance with the schedules set forth in such plans. At the same time, the Settling Defendants shall submit an additional copy to each of the Response Agencies in electronic format.

b. All reports and other documents submitted by Settling Defendants to the Response Agencies (other than the monthly progress reports referred to above) which purport to document Settling Defendants' compliance with the terms of this Consent Decree shall be signed by an authorized representative of the Settling Defendants, including but not limited to the Settling Defendants' Project Coordinator.

XII. RESPONSE AGENCIES' APPROVAL OF PLANS AND OTHER SUBMISSIONS

35. After review of any plan, report or other item which is required to be submitted for approval by the Response Agencies pursuant to this Consent Decree, the Response Agencies shall: (i) approve, in whole or in part, the submission; (ii) approve the submission upon specified conditions; (iii) modify the submission to cure the deficiencies; (iv) disapprove, in whole or in part, the submission, directing that the Settling Defendants modify the submission; or (v) any combination of the above. However, the Response Agencies shall not modify a submission without first providing Settling Defendants at least one notice of deficiency and an opportunity to cure within 30 days, except where to do so would cause serious disruption to the Response Work or where previous submission(s) have been disapproved due to material defects and the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

36. In the event of approval, approval upon conditions, or modification by the Response Agencies, pursuant to Paragraph 35(i), (ii), or (iii), Settling Defendants shall proceed to take any action required by the plan, report, or other item, as approved or modified by the Response Agencies subject only to their right to invoke the Dispute Resolution procedures set forth in Section XX (Dispute Resolution) with respect to the modifications or conditions made by the Response Agencies. In the event that a submission has a material defect and the Response Agencies modify the submission to cure the deficiencies pursuant to Paragraph 35(i), the Response Agencies retain their right to seek stipulated penalties, as provided in Section XXI (Stipulated Penalties).

37. Resubmission of Plans.

a. Upon receipt of a notice of disapproval pursuant to Paragraph 35(iv), Settling Defendants shall, within 30 days or such longer time as specified by the Response Agencies in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XXI, shall accrue during the 30-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 38 and 39.

b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 35(iv), Settling Defendants shall proceed, at the direction of the Response Agencies, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Settling Defendants of any liability for stipulated penalties under Section XXI (Stipulated Penalties).

38. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved by the Response Agencies, the Response Agencies may again require the Settling Defendants to correct the deficiencies, in accordance with the preceding Paragraphs. The Response Agencies also retain the right to modify or develop the plan, report or other item. Settling Defendants shall implement any such plan, report, or item as modified or developed by the Response Agencies, subject only to their right to invoke the procedures set forth in Section XX (Dispute Resolution).

39. If upon resubmission, a plan, report, or item is disapproved or modified by the Response Agencies due to a material defect, Settling Defendants shall be deemed to have failed to submit such plan, report, or item timely and adequately unless the Settling Defendants invoke the dispute resolution procedures set forth in Section XX (Dispute Resolution) and the response Agencies' action is overturned pursuant to that Section. The provisions of Section XX (Dispute Resolution) and Section XXI (Stipulated Penalties) shall govern the implementation of the Response Work and accrual and payment of any stipulated penalties during Dispute Resolution. If the Response Agencies' disapproval or modification is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XXI.

40. All plans, reports, and other items required to be submitted to the response Agencies under this Consent Decree shall, upon approval or modification by the Response Agencies, be enforceable under this Consent Decree. In the event the Response Agencies approve or modify a portion of a plan, report, or other item required to be submitted to the Response Agencies under this Consent Decree, the approved or modified portion shall be enforceable under this Consent Decree.

XIII. PROJECT COORDINATORS

41. Within 10 days after Settling Defendant WTM I Company's submittal of the Pre-Final (90%) Design, Settling Defendants, WDNR, and EPA will notify each other, in writing, of the name, address and telephone number of their respective designated Project Coordinators and Alternate Project Coordinators. If a Project Coordinator or Alternate Project Coordinator initially designated is changed, the identity of the successor will be given to the other Parties at least 5 working days before the changes occur, unless impracticable, but in no event later than the actual day the change is made. The Settling Defendants' Project Coordinator shall be subject to disapproval by the Response Agencies and shall have the technical expertise sufficient to adequately oversee all aspects of the Response Work. The Settling Defendants' Project Coordinator shall not be an attorney for any of the Settling Defendants in this matter. He or she may assign other representatives, including other contractors, to serve as a representative for oversight of performance of daily operations during remedial activities at OU1.

42. Plaintiffs may designate other representatives, including, but not limited to, EPA and WDNR employees, and federal and State contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Consent Decree. EPA's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and an On-Scene Coordinator ("OSC") by the National Contingency Plan, 40 C.F.R. Part 300. In addition, the Response Agencies' Project Coordinators or Alternate Project Coordinators shall have authority, consistent with the National Contingency Plan, to halt any Response Work required by this Consent Decree and to take any necessary response action when s/he determines that conditions at the Site constitute an emergency

situation or may present an immediate threat to public health or welfare or the environment due to release or threatened release of Waste Material.

43. The Response Agencies' Project Coordinators and the Settling Defendants' Project Coordinator will meet, at a minimum, on a monthly basis.

XIV. CERTIFICATION OF COMPLETION

44. Certification of Completion of the Remedial Action for OU1.

a. Within 90 days after Settling Defendants conclude that the Remedial Action has been fully performed such that the Performance Standards have been achieved, Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and the Response Agencies. If, after the pre-certification inspection, the Settling Defendants still believe that the Remedial Action has been fully performed such that the Performance Standards have been achieved, they shall submit a written report to the Response Agencies requesting certification pursuant to Section XII (Response Agencies' Approval of Plans and Other Submissions) within 60 days of the inspection. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the Remedial Action has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that

the Remedial Action or any portion thereof has not been completed in accordance with this Consent Decree such that the Performance Standards have not been achieved, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to complete the Remedial Action such that the Performance Standards are achieved; provided, however, that EPA may only require Settling Defendants to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the “scope of the remedy selected in the ROD,” as that term is defined in Paragraph 15.b. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOW or require the Settling Defendants to submit a schedule to EPA for approval pursuant to Section XII (Response Agencies' Approval of Plans and Other Submissions). Settling Defendants shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to their right to invoke the dispute resolution procedures set forth in Section XX (Dispute Resolution).

b. If EPA concludes, based on the initial or any subsequent report requesting Certification of Completion and after a reasonable opportunity for review and comment by the State, that the Remedial Action has been performed in accordance with this Consent Decree such that the Performance Standards have been achieved, EPA will so certify in writing to Settling Defendants. This certification shall constitute the Certification of Completion of the Remedial Action for purposes of this Consent Decree, including, but not limited to, Section XXII (Covenants Not to Sue by Plaintiffs). Except as expressly provided by this Consent Decree, Certification of Completion of the Remedial Action shall not affect Settling Defendants' obligations under this Consent Decree.

45. Certification of Completion of the Response Work for OU1.

a. Within 90 days after Settling Defendants conclude that all phases of the Response Work (including O&M, Post-Remedy Institutional Controls Work, and Post-Remedy Monitoring) have been fully performed, Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and the Response Agencies. If, after the pre-certification inspection, the Settling Defendants still believe that the Response Work has been fully performed, Settling Defendants shall submit a written report by a registered professional engineer stating that the Response Work has been completed in full satisfaction of the requirements of this Consent Decree. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that any portion of the Response Work has not been completed in accordance with this Consent Decree, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to complete the Response Work; provided, however, that EPA may only require Settling Defendants to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the remedy selected in the ROD," as that term is defined in Paragraph 15.b. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOW or require the Settling Defendants to submit a

schedule to EPA for approval pursuant to Section XII (Response Agencies' Approval of Plans and Other Submissions). Settling Defendants shall perform all activities described in the notice in accordance with the specifications and schedules established therein, subject to their right to invoke the dispute resolution procedures set forth in Section XX (Dispute Resolution).

b. If EPA concludes, based on the initial or any subsequent request for Certification of Completion by Settling Defendants and after a reasonable opportunity for review and comment by the State, that the Response Work has been performed in accordance with this Consent Decree, EPA will so notify the Settling Defendants in writing.

XV. EMERGENCY RESPONSE

46. In the event of any action or occurrence during the performance of the Response Work which causes or threatens a release of Waste Material at or from OU1 that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Settling Defendants shall, subject to Paragraph 47, immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the Response Agencies' Project Coordinators, or, if a Response Agency Project Coordinator is unavailable, the Response Agency's Alternate Project Coordinator. If neither the EPA Project Coordinator nor the EPA Alternate Project Coordinator is available, the Settling Defendants shall notify the EPA Emergency Response Unit, Region 5. Settling Defendants shall take such actions in consultation with the EPA's Project Coordinator or other available authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plans, the Contingency Plans, and any other applicable plans or documents developed pursuant to the SOW. In the event that Settling Defendants fail to take appropriate response action as required by this Section, and EPA or, as appropriate, the State takes such action instead, Settling

Defendants shall reimburse EPA and the State for all costs of the response action not inconsistent with the NCP pursuant to Paragraph 54 (Payment of Specified Future Response Costs).

47. Nothing in the preceding Paragraph or in this Consent Decree shall be deemed to limit any authority of the United States, or the State, to: (i) take all appropriate action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, or (ii) direct or order such action, or seek an order from the Court, to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material at or from the Site, subject to Section XXII (Covenants Not to Sue by Plaintiffs).

XVI. NATURAL RESOURCE RESTORATION EFFORTS

48. Settling Defendants' Performance of Approved Restoration Work. As provided by the following Subparagraphs, the Settling Defendants may propose to the Plaintiffs or the Plaintiffs may propose to the Settling Defendants that the Settling Defendants perform certain natural resource restoration work under this Consent Decree, with the costs to be paid or reimbursed from the Escrow Account.

a. Any restoration work that the Parties agree will be performed by one or both of the Settling Defendants under this Paragraph shall be performed in accordance with a written Project Implementation Plan, jointly approved by the Plaintiffs and by the other Trustees, as represented by the Trustee Council (“Approved Restoration Work”). The Project Implementation Plan shall: (i) describe the restoration work to be performed by one or both of the Settling Defendants; (ii) establish a schedule for performance of the work; and (iii) establish a project budget and a pre-approved cost ceiling for the work. The Project Implementation Plan (including the project budget and the pre-approved cost ceiling) may be revised during the course

of the work by a written amendment approved by the Parties to this Consent Decree and by the other Trustees.

b. All Approved Restoration Work shall be consistent with the Trustees' Joint Restoration Plan and Environmental Assessment for the Lower Fox River and Green Bay (the "Restoration Plan").

c. All of the Settling Defendants' Allowable Restoration Work Costs (as defined by Subparagraph 9.b) for Approved Restoration Work shall be paid or reimbursed from the Escrow Account in accordance with Paragraph 11 of this Consent Decree and Appendix C. Dispute resolution provisions and force majeure provisions for Approved Restoration Work are set forth in Appendix E, which is incorporated herein by reference.

d. As provided by Paragraph 32, each Quarterly Report submitted to the Plaintiffs under this Consent Decree shall include, among other things, a complete and accurate written cost summary of all Allowable Restoration Work Costs for the reporting period, and a summary of all Approved Restoration Work funded and performed under this Paragraph during the reporting period.

e. Within 60 days after completing all Approved Restoration Work under a particular Project Implementation Plan, the Settling Defendants shall submit a Final Project Report to DOI and WDNR summarizing: (i) all Approved Restoration Work performed under the Plan; and (ii) the total Allowable Restoration Work Costs for the Approved Restoration Work performed under the Plan. DOI and WDNR shall in turn provide the other Trustees copies of each Final Project Report.

49. Trustee-Sponsored Natural Resource Restoration Efforts.

a. All funds paid and disbursed to a Site-specific sub-account within the NRDAR Fund under Paragraph 53 shall be managed by DOI for the joint benefit and use of the Trustees to pay for Trustee-sponsored natural resource restoration efforts in accordance with the Restoration Plan. Consistent with the Restoration Plan, all such funds shall be applied toward the costs of restoration, rehabilitation, or replacement of injured natural resources at the Site, and/or acquisition of equivalent resources, including but not limited to any administrative costs and expenses necessary for, and incidental to, restoration, rehabilitation, replacement, and/or acquisition of equivalent resources planning, and any restoration, rehabilitation, replacement, and/or acquisition of equivalent resources undertaken.

b. Decisions regarding any dedication or expenditure of funds under this Paragraph shall be made by the Trustees, acting through the Trustee Council. Settling Defendants shall not be entitled to dispute – under Section XX (Dispute Resolution) or in any other forum or proceeding – any decision relating to funds or restoration efforts under this Paragraph.

XVII. PAYMENTS

50. Payments Into the Escrow Account.

a. Timing and Amount of Initial Payments. Each Settling Defendant shall make initial payments totaling \$26,250,000 into the Escrow Account in accordance with the following schedule: (i) each Settling Defendant shall deposit \$10,500,000 into the Escrow Account by no later than March 31, 2004; and (ii) each Settling Defendant shall deposit an additional \$15,750,000 into the Escrow Account by no later than June 30, 2004. The payment requirements of this Paragraph are several obligations only, not joint obligations.

b. Nature of the Initial Payments. Each Settling Defendant's payment under this Paragraph includes the following: (i) \$25,000,000 to fund the Remedial Action; and (ii) \$1,250,000 to fund a portion of the NRD Commitment.

c. Subsequent Payments. Subsequent payments into the Escrow Account shall be made and used to fund the Remedial Action and the Response Work as follows:

(1) Each Settling Defendants has made or assured payments of \$6,000,000 into the Escrow Account as provided by the Agreed Supplement to Consent Decree filed with the Court on September 13, 2007.

(2) The parties acknowledge that an additional \$7,000,000 has been paid into the Escrow Account by Menasha Corporation as provided by the Second Agreed Supplement to Consent Decree filed with the Court on November 13, 2007. This Amended Consent Decree does not alter or supersede the provisions of that Second Agreed Supplement relating to that payment by Menasha Corporation.

(3) By July 15, 2008, WTM I Company ("WTM I") shall make a payment of \$9,500,000, which shall be deposited in the WTM I Sub-account.

(4) By July 15, 2008, P.H. Glatfelter Company ("Glatfelter") shall make a payment of \$3,000,000, which shall be deposited in the Glatfelter Sub-account. In addition, by July 15, 2008, Glatfelter shall obtain an irrevocable letter of credit which shall provide for payment of an additional \$6,500,000 into the Glatfelter Sub-account upon receipt of a written demand by EPA at any time between January 15, 2009 and February 20, 2009. The irrevocable letter of credit shall be issued by a financial institution that has the authority to issue letters of

credit and whose letter of credit operations are regulated and examined by an agency of the United States Government. The financial institution shall have surplus and reserves in excess of \$500 million. The irrevocable letter of credit shall identify EPA as the beneficiary and the full \$6,500,000 shall immediately be payable to the Glatfelter Sub-account upon receipt of an EPA Payment Directive (to be dated no earlier than January 15, 2009) in the form attached hereto at Appendix J. Notwithstanding the requirement that the letter of credit be irrevocable, at any time prior to January 15, 2009, Glatfelter may deposit an additional \$6,500,000 into the Glatfelter Sub-account, at which time Glatfelter may cancel the letter of credit. The United States shall surrender the letter of credit for cancellation to the issuing bank at Glatfelter's request at any time following Glatfelter's deposit into the Escrow Account pursuant to the preceding sentence.

(5) If, prior to the Certification of Completion of Remedial Action, the third Quarterly Report for any calendar year (that is, the report due on or before November 1) indicates that the balance remaining in the Escrow Account, including all sub-accounts, is insufficient to fund the completion of the following season of the Remedial Action and to leave a remaining balance of \$4,000,000 for work in the year 2010 and thereafter, including work required by Section VIII of this Amended Consent Decree (Post-Remedy Response Work and Remedy Review), each Settling Defendant shall make an additional payment to the Escrow Account. The amount of each Settling Defendant's payment pursuant to this subparagraph shall be one-half of the amount of additional funding specified

in the Quarterly Report as sufficient to complete the following season and to leave a remaining balance of \$4,000,000 for work in the year 2010 and thereafter, including work required by Section VIII of this Amended Consent Decree (Post-Remedy Response Work and Remedy Review). The payments shall be deposited in each Settling Defendant's sub-account of the Escrow Account on or before the January 15 following the Quarterly Report.

51. Disbursements from the Escrow Account

a. As provided by this Consent Decree and Appendix C, certain funds from the Escrow Account shall be disbursed to the United States and the State as payment of sums due under this Consent Decree, and certain other funds from Escrow Account shall be disbursed to the Settling Defendants for payment or reimbursement of Allowable RD/RA Costs and/or Allowable Restoration Work Costs.

b. It is anticipated that certain funds may be disbursed from the Escrow Account for payment of certain Allowable RD/RA costs and/or Allowable Restoration Work Costs even before the Effective Date. In the event the Plaintiffs withdraw or withhold consent to this Consent Decree before entry, or the Court declines to enter the Consent Decree, the unexpended balance of the Escrow Account shall be disbursed to the Settling Defendants at their request.

52. Initial Payments to Plaintiffs.

a. Initial Payments to the United States. Within 30 days after the Date of Lodging, the Settling Defendants shall pay a total of \$1,040,000 directly to the United States, with each Settling Defendant being responsible for paying one-half of that total amount (\$520,000 each). The \$1,040,000 paid to the United States under this Subparagraph shall be

applied as follows: (i) \$740,000 shall be directed to the Fox River Site Special Account within the EPA Hazardous Substance Superfund, as the EPA Past Cost Payments, and shall be retained and used to conduct or finance response actions at or in connection with the Site, or transferred by EPA to the EPA Hazardous Substance Superfund; and (ii) \$300,000 shall be directed to the DOI NRDAR Fund, as the DOI Past Cost Payments.

b. State Past Cost Payments. Within 30 days after the Date of Lodging, the Settling Defendants shall pay a total of \$10,000 directly to the State, as the State Past Cost Payments, with each Settling Defendant being responsible for paying one-half of that total amount (\$5,000 each).

c. The payment requirements of this Paragraph are several obligations only, not joint obligations.

53. Subsequent Payments and Disbursements for Natural Resource Restoration. As provided by this Paragraph and by Appendix C, a total of \$3,000,000 shall be paid and disbursed as the NRD Commitment.

a. By no later than January 31, 2004, the Settling Defendants shall pay a total of \$500,000 of the NRD Commitment directly to a Site-specific sub-account within the DOI NRDAR Fund, with each Settling Defendant being responsible for paying one-half of that total amount (\$250,000 each), to finance Trustee-sponsored natural resource damage restoration efforts under Paragraph 49. The payment requirements of this Subparagraph are several obligations only, not joint obligations.

b. The remaining \$2,500,000 of the NRD Commitment shall be disbursed from the Escrow Account in accordance with the schedule and requirements of Appendix C: (i) for payment or reimbursement of Allowable Restoration Work Costs incurred for Approved

Restoration Work to be performed by the Settling Defendants under Paragraph 48; and/or (ii) for payment to a Site-specific sub-account within the DOI NRDAR Fund, to finance Trustee-sponsored natural resource damage restoration efforts under Paragraph 49.

54. Reimbursement of Specified Future Response Costs.

a. EPA Reimbursement. All Specified Future Response Costs incurred by the United States shall be reimbursed as follows:

(1) The United States shall be entitled to seek reimbursement of any Specified Future Response Costs incurred and billed by the United States from the Escrow Account as provided by Appendix C, to the extent that such costs are not inconsistent with the National Contingency Plan.

(2) Upon receipt of a written demand for payment, the Settling Defendants shall make direct payments to EPA for any Specified Future Response Costs incurred and billed by the United States if such costs have not been reimbursed from the Escrow Account, to the extent that such costs are not inconsistent with the National Contingency Plan. On a periodic basis, if such costs have not been reimbursed from the Escrow Account, the United States will send Settling Defendants a bill requiring payment that includes an EPA cost summary, showing direct and indirect costs incurred by EPA and its contractors, and a DOJ cost summary, showing costs incurred by DOJ and its contractors, if any. Settling Defendants shall make all payments within 30 days of Settling Defendants' receipt of each bill requiring payment, except as otherwise provided by Paragraph 68.

(3) All payments and disbursements received by EPA under this Subparagraph 54.a shall be deposited in the Fox River Site Special Account within the EPA Hazardous Substance Superfund, and shall be retained and used to conduct or finance response

actions at or in connection with the Site, or transferred by EPA to the EPA Hazardous Substance Superfund.

b. State Reimbursement. All Specified Future Response Costs incurred by the State shall be reimbursed as follows:

(1) The State shall be entitled to seek reimbursement of any Specified Future Response Costs incurred and billed by the State from the Escrow Account as provided by Appendix C, to the extent that such costs are not inconsistent with the National Contingency Plan.

(2) Upon receipt of a written demand for payment, the Settling Defendants shall make direct payments to the State for any Specified Future Response Costs incurred and billed by the State if such costs have not been reimbursed from the Escrow Account, to the extent that such costs are not inconsistent with the National Contingency Plan. On a periodic basis, if such costs have not been reimbursed from the Escrow Account, the State will send Settling Defendants a bill requiring payment that includes a WDNR cost summary, showing direct and indirect costs incurred by WDNR and its contractors, and a WDOJ cost summary, showing costs incurred by WDOJ and its contractors, if any. Settling Defendants shall make all payments within 30 days of Settling Defendants' receipt of each bill requiring payment, except as otherwise provided by Paragraph 68.

c. The direct payment requirements of this Paragraph are joint obligations of both Settling Defendants, not several obligations.

55. Payment Instructions.

a. Payments to the United States.

(1) Initial Payments to the United States. The Initial Payments to the United States under Subparagraph 52.a shall be paid by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice account in accordance with current EFT procedures, referencing the Lower Fox River and Green Bay Site and DOJ Case Number 90-11-2-1045/2. Payment shall be made in accordance with instructions to be provided by the Financial Litigation Unit of the United States Attorney's Office for the Eastern District of Wisconsin after the Date of Lodging. Any payments received by the Department of Justice after 4:00 p.m. (Eastern Time) will be credited on the next business day. At the time of payment, Settling Defendants shall ensure that notice that payment has been made is sent to DOJ, DOI, and EPA in accordance with Section XXVIII (Notices and Submissions) and to:

Financial Management Officer
U.S. Environmental Protection Agency, Region 5
Mail Code MF-10J
77 W. Jackson Blvd.
Chicago, IL 60604

Of the \$1,040,000 total amount paid to the United States under Subparagraph 52.a: (i) \$740,000 shall be deposited in the Fox River Site Special Account, to be retained and used to conduct or finance response actions at or in connection with the Site, or transferred by EPA to the EPA Hazardous Substance Superfund; and (ii) \$300,000 shall be deposited in the DOI NRDAR Fund.

(2) All Other Payments to EPA. Except as provided by Subparagraph 55.a.(1), all payments to EPA under this Section or under Appendix C shall: (i) be made by a certified or cashier's check or checks made payable to “EPA Hazardous Substance Superfund, Fox River Site Special Account;” (ii) reference the Lower Fox River and Green Bay Site, EPA Site/Spill ID Number A565, and DOJ Case Number 90-11-2-1045/2; and (iii) indicate that the

payment is for Specified Future Response Costs payable pursuant to this Consent Decree. All payments to EPA under Section XXI (Stipulated Penalties and Stipulated Damages) shall: (i) be made by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund;" (ii) reference the Lower Fox River and Green Bay Site, EPA Site/Spill ID Number A565, and DOJ Case Number 90-11-2-1045/2; and (iii) indicate that the payment is for stipulated penalties payable pursuant to this Consent Decree. All payments under this Subparagraph 55.a.(2) shall be sent to:

U.S. Environmental Protection Agency
Superfund Payments – Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

At the time of payment, Settling Defendants shall ensure that notice that payment has been made is sent to DOJ and EPA in accordance with Section XXVIII (Notices and Submissions) and to:

Financial Management Officer
U.S. Environmental Protection Agency, Region 5
Mail Code MF-10J
77 W. Jackson Blvd.
Chicago, IL 60604

(3) All Other Payments to the DOI NRDAR Fund. Except as provided by Subparagraph 55.a.(1), all payments to the DOI NRDAR Fund under this Section or under Appendix C shall: (i) be made by an electronic funds transfer transaction in accordance with transfer instruction to be provided by the United States; (ii) reference the Lower Fox River and Green Bay Site and DOJ Case Number 90-11-2-1045/2; and (iii) indicate that the payment is being made pursuant to this Consent Decree with WTM I Company and P. H. Glatfelter Company. At the time of payment, Settling Defendants shall ensure that notice that payment has been made is sent to DOI, DOJ, WDNR, and WDOJ in accordance with Section XXVIII (Notices and Submissions) and to:

Department of the Interior
Natural Resource Damage Assessment and Restoration Program
Attn: Restoration Fund Manager
1849 C Street, N.W.
Mailstop 4449
Washington, DC 20240

DOI shall in turn notify the other Trustees that a payment to the DOI NRDAR Fund has been received under this Subparagraph.

(4) Payments to the United States for Stipulated Damages Under Paragraph 74. All payments to the United States under Paragraph 74 (Stipulated Damages Amounts - NRD Commitment) shall: (i) be made by a certified or cashier's check or checks made payable to "Treasurer, United States of America;" (ii) be tendered to the Financial Litigation Unit of the Office of the United States Attorney for the Eastern District of Wisconsin; and (iii) be accompanied by a letter referencing the Lower Fox River and Green Bay Site and indicating that the payment is for stipulated damages payable pursuant to Paragraph 74 of this Consent Decree with WTM I Company and P. H. Glatfelter Company. At the time of payment, Settling Defendants shall ensure that notice that payment has been made is sent to DOI and DOJ in accordance with Section XXVIII (Notices and Submissions).

b. Payments to the State. All payments to the State under this Section or under Section XXI (Stipulated Penalties and Stipulated Damages) shall: (i) be made by a certified or cashier's check or checks made payable to "Wisconsin Department of Natural Resources;" (ii) reference the Lower Fox River and Green Bay Site; (iii) indicate that the payment is being made pursuant to this Consent Decree with WTM I Company and P. H. Glatfelter Company; and (iv) be sent to:

Wisconsin Department of Natural Resources
Attn: Greg Hill, State Project Coordinator
101 S. Webster St.
Madison, WI 53703

At the time of payment, Settling Defendants shall ensure that notice that payment has been made is sent to the State in accordance with Section XXVIII (Notices and Submissions).

XVIII. INDEMNIFICATION AND INSURANCE

56. Settling Defendants' Indemnification of the United States and the State.

a. The United States and the State do not assume any liability by entering into this agreement or by virtue of any designation of Settling Defendants as EPA's authorized representatives under Section 104(e) of CERCLA. Settling Defendants shall indemnify, save and hold harmless the United States, the State, and their officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree, including, but not limited to, any claims arising from any designation of Settling Defendants as EPA's authorized representatives under Section 104(e) of CERCLA. Further, the Settling Defendants agree to pay the United States and the State all costs they incur including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States or the State based on negligent or other wrongful acts or omissions of Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree. Neither the United States nor the State shall be held out as a party to any contract entered into by or on behalf of Settling Defendants in carrying out activities pursuant to this Consent Decree. Neither the Settling Defendants nor any such contractor shall be considered an agent of the United States or the State.

b. The United States and the State shall give Settling Defendants notice of any claim for which the United States or the State plans to seek indemnification pursuant to Paragraph 56, and shall consult with Settling Defendants prior to settling such claim.

c. Nothing contained in this Consent Decree is intended to limit Settling Defendants' potential for insurance coverage.

57. Settling Defendants waive all claims against the United States and the State for damages or reimbursement or for set-off of any payments made or to be made to the United States or the State, arising from or on account of any contract, agreement, or arrangement between any one or more of Settling Defendants and any person for performance of Response Work on or relating to OU1 or any Approved Restoration Work, including, but not limited to, claims on account of construction delays. In addition, Settling Defendants shall indemnify and hold harmless the United States and the State with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Settling Defendants and any person for performance of Response Work on or relating to OU1 or any Approved Restoration Work, including, but not limited to, claims on account of construction delays.

58. No later than 15 days before commencing any on-site Remedial Design work under this Consent Decree, Settling Defendant WTM I Company shall secure, and shall maintain throughout the Remedial Design, comprehensive general liability insurance with limits of 1 million dollars, combined single limit, and automobile liability insurance with limits of 1 million dollars, combined single limit, naming the United States and the State as additional insureds. No later than 15 days before commencing any on-site Remedial Action work under this Consent Decree, Settling Defendants shall secure, and shall maintain until the first

anniversary of EPA's Certification of Completion of the Remedial Action pursuant to Subparagraph 44.b, comprehensive general liability insurance with limits of 5 million dollars, combined single limit, and automobile liability insurance with limits of 2 million dollars, combined single limit, naming the United States and the State as additional insureds. In addition, for the duration of this Consent Decree, Settling Defendants shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Response Work on behalf of Settling Defendants in furtherance of this Consent Decree. Prior to commencement of the Response Work under this Consent Decree, Settling Defendants shall provide the Response Agencies certificates of such insurance and a copy of each insurance policy. Settling Defendants shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. If Settling Defendants demonstrate by evidence satisfactory to the Response Agencies that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Settling Defendants need provide only that portion of the insurance described above which is not maintained by the contractor or subcontractor. Costs incurred by Settling Defendants to comply with this paragraph shall be considered Allowable RD/RA Costs.

XIX. FORCE MAJEURE EVENTS

59. Except as provided by Paragraph 2 of Appendix E, if any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a Force Majeure Event, the Settling Defendants or their contractors shall orally notify the Response Agencies' Project Coordinators or, in a Response Agency's Project Coordinator's absence, the response Agency's Alternate Project Coordinator or, in the event both

of EPA's designated representatives are unavailable, Superfund Division Director for EPA Region 5, within 5 working days of when Settling Defendants first knew that the event might cause a delay. Within 10 working days thereafter, Settling Defendants shall provide the Response Agencies a written explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the Settling Defendants' rationale for attributing such delay to a Force Majeure Event if they intend to assert such a claim; and a statement as to whether, in the opinion of the Settling Defendants, such event may cause or contribute to an endangerment to public health, welfare or the environment. The Settling Defendants shall include with any notice all available documentation supporting their claim that the delay was attributable to a Force Majeure Event. Failure to comply with the above requirements shall preclude Settling Defendants from asserting any claim of a Force Majeure Event for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Settling Defendants shall be deemed to know of any circumstance of which Settling Defendants, any entity controlled by Settling Defendants, or Settling Defendants' contractors knew or should have known.

60. If EPA, after a reasonable opportunity for review and comment by WDNR, agrees that the delay or anticipated delay is attributable to a Force Majeure Event, the time for performance of the obligations under this Consent Decree that are affected by the Force Majeure Event will be extended by EPA, after a reasonable opportunity for review and comment by WDNR, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the Force Majeure Event shall not, of itself, extend the time for performance of any other obligation. If EPA, after a reasonable opportunity

for review and comment by WDNR, does not agree that the delay or anticipated delay has been or will be caused by a Force Majeure Event, EPA will notify the Settling Defendants in writing of its decision. If EPA, after a reasonable opportunity for review and comment by WDNR, agrees that the delay is attributable to a Force Majeure Event, EPA will notify the Settling Defendants in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure Event.

61. If the Settling Defendants elect to invoke the dispute resolution procedures set forth in Section XX (Dispute Resolution), they shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Settling Defendants shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure Event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Settling Defendants complied with the requirements of Paragraphs 57 and 58, above. If Settling Defendants carry this burden, the delay at issue shall be deemed not to be a violation by Settling Defendants of the affected obligation of this Consent Decree identified to EPA and the Court.

XX. DISPUTE RESOLUTION

62. Except as provided by Paragraph 3 of Appendix E, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes between Settling Defendants and the Plaintiffs arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the Plaintiffs to enforce obligations of the Settling Defendants that have not been disputed in accordance with this Section. The dispute resolution procedures of this Section shall not apply to any disputes

between Settling Defendants and the Plaintiffs not arising under or with respect to this Consent Decree.

63. Informal Dispute Resolution. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed 20 days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other parties a written Notice of Dispute.

64. Formal Dispute Resolution.

a. Except as provided by Paragraph 3 of Appendix E, in the event that the parties cannot resolve a dispute by informal negotiations under Paragraph 63, then the position advanced by EPA shall be considered binding unless, within 10 days after the conclusion of the informal negotiation period, Settling Defendants invoke the formal dispute resolution procedures of this Section by serving on the Plaintiffs a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the Settling Defendants. The Statement of Position shall specify the Settling Defendants' position as to whether formal dispute resolution should proceed under Paragraph 65 or Paragraph 66.

b. Within 30 days after receipt of Settling Defendants' Statement of Position, EPA will serve on Settling Defendants its Statement of Position, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal

dispute resolution should proceed under Paragraph 65 or 66. Within 10 days after receipt of EPA's Statement of Position, Settling Defendants may submit a Reply.

c. If there is disagreement between EPA and the Settling Defendants as to whether dispute resolution should proceed under Paragraph 65 or 66, the parties to the dispute shall follow the procedures set forth in the paragraph determined by EPA to be applicable. However, if the Settling Defendants ultimately appeal to the Court to resolve the dispute, the Court shall determine which paragraph is applicable in accordance with the standards of applicability set forth in Paragraphs 65 and 66.

65. Formal dispute resolution for disputes pertaining to the selection or adequacy of any response action and all other disputes that are accorded review on the administrative record under applicable principles of administrative law shall be conducted pursuant to the procedures set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action includes, without limitation: (i) the adequacy or appropriateness of plans, procedures to implement plans, or any other items requiring approval by the Response Agencies under this Consent Decree; and (ii) the adequacy of the performance of response actions taken pursuant to this Consent Decree. Nothing in this Consent Decree shall be construed to allow any dispute by Settling Defendants under this Consent Decree regarding the validity of the ROD's provisions.

a. An administrative record of the dispute shall be maintained by EPA and shall contain all statements of position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

b. The Superfund Division Director for EPA Region 5 will issue a final administrative decision resolving the dispute based on the administrative record described in Subparagraph 65.a. This decision shall be binding upon the Settling Defendants, subject only to the right to seek judicial review pursuant to Subparagraphs 65.c and d.

c. Any administrative decision made by EPA pursuant to Subparagraph 65.b shall be reviewable by this Court, provided that a motion for judicial review of the decision is filed by the Settling Defendants with the Court and served on all Parties within 20 days of receipt of EPA's decision. The motion shall include a description of the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Consent Decree. The United States and the State may file a response to Settling Defendants' motion.

d. In proceedings on any dispute governed by this Paragraph, Settling Defendants shall have the burden of demonstrating that the decision of the Superfund Division Director for EPA Region 5 is arbitrary and capricious or otherwise not in accordance with law. Judicial review of EPA's decision shall be on the administrative record compiled pursuant to Subparagraph 65.a.

66. Formal dispute resolution for disputes that neither pertain to the selection or adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law, shall be governed by this Paragraph.

a. Following receipt of Settling Defendants' Statement of Position submitted pursuant to Paragraph 64, and after service of EPA's Statement of Position and any Reply, the Superfund Division Director for EPA Region 5 will issue a final decision resolving the dispute. The Superfund Division Director's decision shall be binding on the Settling Defendants unless,

within 20 days of receipt of the decision, the Settling Defendants file with the Court and serve on the parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Decree. The United States may file a response to Settling Defendants' motion.

b. Notwithstanding Paragraph K of Section I (Background) of this Consent Decree, judicial review of any dispute governed by this Paragraph shall be governed by applicable principles of law.

67. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation of the Settling Defendants under this Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute as provided in Paragraph 79. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Consent Decree. In the event that the Settling Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XXI (Stipulated Penalties).

68. Disputes Regarding Specified Future Response Costs. Settling Defendants may contest payment of any Specified Future Response Costs under Paragraph 54 if they determine that the United States or the State has made an accounting error or if they allege that a cost item that is included represents costs that are inconsistent with the NCP. For any such costs incurred and billed before Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b, notice of any such objection shall be submitted in writing as provided by

Subparagraph 5.c of Appendix C. For any such costs incurred and billed after Certification of Completion of Remedial Action by EPA pursuant to Subparagraph 44.b, notice of any such objection shall be given in writing within 30 days of receipt of the bill. A copy of any notice of objection shall be sent to the United States (if the United States' accounting is being disputed) or to the State (if the State's accounting is being disputed) pursuant to Section XXVIII (Notices and Submissions). Any such notice of objection shall specifically identify the contested Specified Future Response Costs and the basis for objection. In the event of an objection, all uncontested Specified Future Response Costs shall immediately be paid to the United States or the State in the manner described in Paragraph 54. Upon submitting a notice of objection, the Settling Defendants shall initiate the Dispute Resolution procedures in Section XX (Dispute Resolution). If the United States or the State prevails in the dispute, within 10 days of the resolution of the dispute, all sums due (with accrued Interest) shall be paid to EPA (if the United States' cost are disputed) or to the State (if the State's costs are disputed) in the manner described in Paragraph 54. If the Settling Defendants prevail concerning any aspect of the contested costs, the portion of the costs (plus associated accrued interest) for which they did not prevail shall be disbursed to EPA or the State, as appropriate, in the manner described in Paragraph 54; and the amount that was successfully contested need not be paid to EPA or to the State. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XX (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding reimbursement of the United States and the State for their Specified Future Response Costs.

XXI. STIPULATED PENALTIES AND STIPULATED DAMAGES

69. Settling Defendants shall be liable for stipulated penalties and/or stipulated damages in the amounts set forth in this Section for failure to comply with the requirements of this Consent Decree specified below, unless excused under Section XIX (Force Majeure Events) or Paragraph 2 (Force Majeure Events for Restoration Work) of Appendix E. “Compliance” by Settling Defendants shall include completion of the activities under this Consent Decree or any work plan or other plan approved under this Consent Decree identified below in accordance with all applicable requirements of law, this Consent Decree, the SOW, and any plans or other documents approved by the Plaintiffs pursuant to this Consent Decree and within the specified time schedules established by and approved under this Consent Decree.

70. Stipulated Penalty Amounts - Failure to Make Payments. A Settling Defendant shall be liable for stipulated penalties in the amounts set forth below for each day of violation for that Settling Defendant's failure to make payments as required under this Consent Decree:

<u>VIOLATION</u>	<u>PENALTY PER DAY</u>		
	<u>10 DAYS</u>	<u>UP TO 11-30 DAYS</u>	<u>OVER 30 DAYS</u>
Failure to deposit funds in the Escrow Account as required by Subparagraph 50.a:	\$10,000	\$15,000	\$25,000
Failure to make any Initial Payments to Plaintiffs as required by Paragraph 52:	\$1,000	\$2,500	\$5,000
Failure to make any payment of Specified Future Response Costs as required by Subparagraphs 54.a.(2) or 54.b.(2):	\$1,000	\$2,500	\$5,000

Any stipulated penalties for failure to deposit funds in the Escrow Account shall be divided evenly between EPA and the State. Any stipulated penalties for failure to make any Initial Payments to Plaintiffs shall be divided between the United States and the State in proportion to

the amounts that are unpaid or overdue. Any stipulated penalties for failure to make payment of Specified Future Response Costs shall be paid to the Party that rendered the bill involved.

71. Stipulated Penalty Amounts - Response Work. Settling Defendants shall be liable for stipulated penalties in the amounts set forth below for each day of violation for failure to perform Response Work as required under this Consent Decree:

<u>VIOLATION</u>	<u>PENALTY PER DAY</u>		
	<u>10 DAYS</u>	<u>UP TO 11-30 DAYS</u>	<u>OVER 30 DAYS</u>
Failure to perform the Remedial Action in accordance with the schedule and requirements established by the Remedial Action Work Plan, as mandated by Paragraph 14:	\$2,000	\$5,000	\$10,000
Failure to perform O&M or Long Term Monitoring in accordance with the schedule and requirements established by the Final Operation and Maintenance Plan, as mandated by Paragraph 14, Paragraph 18, and Paragraph 19:	\$1,000	\$2,500	\$5,000
Failure to perform Institutional Controls requirements in accordance with the schedule and requirements established by the Institutional Controls Plan, as mandated by Paragraph 14 and Paragraph 18:	\$1,000	\$2,500	\$5,000
Failure to undertake response action as required by Section XV (Emergency Response):	\$5,000	\$10,000	\$20,000

Any stipulated penalties under this Paragraph shall be divided evenly between EPA and the State.

72. Stipulated Penalty Amount - Response Work Takeover. In the event that the Response Agencies assume performance of a portion or all of the Response Work pursuant to Paragraph 90 of Section XXII (Covenants Not to Sue by Plaintiffs), Settling Defendants shall be liable for a stipulated penalty in the amount of \$250,000. Any stipulated penalties under this Paragraph shall be divided evenly between EPA and the State.

73. Stipulated Penalty Amounts - Response Work Reports and Submissions. Settling Defendants shall be liable for stipulated penalties in the amounts set forth below for each day of violation for failure to comply with Response Work reporting and submission requirements under this Consent Decree:

<u>VIOLATION</u>	<u>PENALTY PER DAY</u>		
	<u>10 DAYS</u>	<u>UP TO 11-30 DAYS</u>	<u>OVER 30 DAYS</u>
Failure to submit a Remedial Action Work Plan or any other Remedial Action Plan as Required by Paragraph 14:	\$2,000	\$4,000	\$5,000
Failure to submit any Monthly RD/RA Progress Report as required by Paragraph 31:	\$1,000	\$2,000	\$2,500
Failure to submit any Quarterly Report as required by Paragraph 32:	\$1,000	\$2,000	\$2,500
Failure to comply with the Release Reporting requirements under Paragraph 33:	\$1,000	\$2,000	\$2,500

Any stipulated penalties under this Paragraph shall be divided evenly between the United States and the State.

74. Stipulated Damages Amounts - NRD Commitment. A Settling Defendant shall be liable for stipulated damages in the amounts set forth below for each day of violation for that Settling Defendant's failure to comply with requirements under this Consent Decree relating to the NRD Commitment:

<u>VIOLATION</u>	<u>DAMAGES PER DAY</u>		
	<u>10 DAYS</u>	<u>UP TO 11-30 DAYS</u>	<u>OVER 30 DAYS</u>
Failure to make the Subsequent Payment for Natural Resource Restoration as required by Subparagraph 53.a:	\$1,000	\$2,500	\$5,000
Failure to perform Approved Restoration Work			

in accordance with an approved Project Implementation Plan, as required by Paragraph 48:	\$500	\$1,000	\$1,500
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Failure to submit a Final Project Report on Approved Restoration Work, as required by Subparagraph 48.e:	\$500	\$1,000	\$2,000
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Any stipulated damages under this Paragraph shall be divided evenly between the United States and the State.

75. All stipulated penalties and/or stipulated damages shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (i) with respect to a deficient submission under Section XII (Response Agencies' Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after the response Agencies' receipt of such submission until the date that the Response Agencies notify Settling Defendants of any deficiency; (ii) with respect to a decision by the Plaintiffs under Paragraph 3 (Dispute Resolution for Restoration Work) of Appendix E, during the period, if any, beginning on the 21st day after the date that Settling Defendants' Statement of Position is received until the date that the Plaintiffs issue a final administrative decision regarding such dispute; (iii) with respect to a decision by the Superfund Division Director for Region 5 under Subparagraph 65.b or 66.a of Section XX (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that Settling Defendants' reply to EPA's Statement of Position is received until the date that the Superfund Division Director issues a final decision regarding such dispute; or (iv) with respect to judicial review by this Court of any dispute under Section XX (Dispute Resolution) or Paragraph 3 of Appendix E, during the period, if any, beginning on the 31st day after the Court's

receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties and/or stipulated damages for separate violations of this Consent Decree.

76. Following the Plaintiffs' determination that Settling Defendants have failed to comply with a requirement of this Consent Decree, the Plaintiffs may give Settling Defendants written notification of the same and describe the noncompliance. The Plaintiffs may send the Settling Defendants a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether the Plaintiffs have notified the Settling Defendants of a violation.

77. Settling Defendants shall pay any stipulated penalties or stipulated damages accruing under this Section directly to the Plaintiffs, and shall not be entitled to seek payment or reimbursement of such penalties or damages from the Disbursement Special Account or from the Escrow Account under Paragraph 10, Paragraph 11, Appendix B, or Appendix C. All penalties or damages accruing under this Section shall be due and payable to the United States and the State within 30 days of the Settling Defendants' receipt of a demand for payment by the Plaintiffs, unless Settling Defendants invoke the Dispute Resolution procedures under Paragraph 3 of Appendix E or Section XX (Dispute Resolution). All payments under this Section shall be paid by certified or cashier's check(s), shall indicate that the payment is for stipulated penalties or stipulated damages, and shall be submitted to EPA, to the State, and/or to the DOI NRDAR Fund, as appropriate, in the manner specified by Paragraph 55 (Payment Instructions).

78. The payment of penalties or damages under this Section shall not alter in any way Settling Defendants' obligation to complete the performance of the Response Work or any Approved Restoration Work required under this Consent Decree.

79. Penalties and/or damages shall continue to accrue as provided in Paragraph 75 during any dispute resolution period, but need not be paid until the following:

a. If the dispute is resolved by agreement or by an administrative decision that is not appealed to this Court, accrued penalties and/or damages determined to be owing shall be paid to within 15 days of the agreement or the receipt of the administrative decision;

b. If the dispute is appealed to this Court and the Plaintiffs prevail in whole or in part, Settling Defendants shall pay all accrued penalties and/or damages determined by the Court to be owed to the Plaintiffs within 60 days of receipt of the Court's decision or order, except as provided in Subparagraph c below;

c. If the District Court's decision is appealed by any Party, Settling Defendants shall pay all accrued penalties and/or damages determined by the District Court to be owing to the United States or the State into an interest-bearing escrow account within 60 days of receipt of the Court's decision or order. Penalties and/or damages shall be paid into this account as they continue to accrue, at least every 60 days. Within 15 days of receipt of the final appellate court decision, the Escrow Agent shall pay the balance of the account to the Plaintiffs or to Settling Defendants to the extent that they prevail.

80. If Settling Defendants fail to pay stipulated penalties and/or stipulated damages when due, the United States or the State may institute proceedings to collect the penalties and/or damages, as well as interest. Settling Defendants shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 77.

81. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States or the State to seek any other remedies or sanctions available by virtue of Settling Defendants' violation of this Decree or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA; provided, however, that the United States shall not seek civil penalties pursuant to Section 122(l) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of the Consent Decree.

82. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties or stipulated damages payable to the United States that have accrued pursuant to this Consent Decree. Similarly, notwithstanding any other provision of this Section, the State may, in its unreviewable discretion, waive any portion of stipulated penalties or stipulated damages payable to the State that have accrued pursuant to this Consent Decree.

XXII. COVENANTS NOT TO SUE BY PLAINTIFFS

83. General Scope of Covenants

a. As specified by the covenants not to sue contained in Paragraphs 84 and 85, and subject to the reservations contained in Paragraphs 86, 87, and 89, this Consent Decree is intended to address the Settling Defendants' alleged liability under Sections 106 and 107(a) of CERCLA for "OU1 Response Activities and Costs," as that term is defined by the following Subparagraph 83.b.

b. For the purpose of this Consent Decree, the term "OU1 Response Activities and Costs" is defined as all response activities for Operable Unit 1 performed or to be performed after July 1, 2003, as well as all costs for response activities for Operable Unit 1

incurred after July 1, 2003. The “OU1 Response Activities and Costs” shall therefore include, but shall not be limited to, all Response Work performed or to be performed after July 1, 2003 and all Specified Future Response Costs.

84. United States' Covenant Not To Sue. In consideration of the actions that will be performed by the Settling Defendants pursuant to this Consent Decree and the payments that will be made to the Plaintiffs under the terms of the Consent Decree, and except as specifically provided by Paragraphs 86, 87, and 89, the United States covenants not to sue or to take administrative action against Settling Defendants for OU1 Response Activities and Costs pursuant to: (i) CERCLA Sections 106 and 107, 42 U.S.C. §§ 9606 and 9607; (ii) RCRA Section 7003, 42 U.S.C. § 6973; (iii) Clean Water Act Section 311, 33 U.S.C. § 1321; (iv) Toxic Substances Control Act Section 7, 15 U.S.C. § 2606; or (v) Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 403. Except with respect to future liability, these covenants not to sue shall take effect upon the receipt by Plaintiffs of the payments required by Paragraph 52 (Initial Payments to Plaintiffs). With respect to future liability, these covenants not to sue shall take effect upon Certification of Completion of Remedial Action by EPA pursuant to Paragraph 44.b. These covenants not to sue are conditioned upon the satisfactory performance by Settling Defendants of their obligations under this Consent Decree. These covenants not to sue extend only to the Settling Defendants and do not extend to any other person; provided, however that these covenants not to sue (and the reservations thereto) shall also apply to Settling Defendants' Related Parties.

85. State's Covenant Not To Sue. In consideration of the actions that will be performed by the Settling Defendants and the payments that will be made to the Plaintiffs under the terms of the Consent Decree, and except as specifically provided by Paragraphs 86, 87, and

89, the State covenants not to sue or to take administrative action against Settling Defendants for OU1 Response Activities and Costs pursuant to: (i) CERCLA Section 107, 42 U.S.C. § 9607; (ii) RCRA Section 700, 42 U.S.C. § 6972; (iii) Clean Water Act Section 505, 33 U.S.C. § 1365; (iv) Toxic Substances Control Act Section 20, 15 U.S.C. § 2619; or (v) Wisconsin statutory or common law. Except with respect to future liability, these covenants not to sue shall take effect upon the receipt by Plaintiffs of the payments required by Paragraph 52 (Initial Payments to Plaintiffs). With respect to future liability, these covenants not to sue shall take effect upon Certification of Completion of Remedial Action by EPA pursuant to Paragraph 44.b. These covenants not to sue are conditioned upon the satisfactory performance by Settling Defendants of their obligations under this Consent Decree. These covenants not to sue extend only to the Settling Defendants and do not extend to any other person; provided, however that these covenants not to sue (and the reservations thereto) shall also apply to Settling Defendants' Related Parties.

86. Pre-certification Reservations. Notwithstanding any other provision of this Consent Decree, the United States and the State reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Settling Defendants (i) to perform further response actions relating to OU1 or (ii) to reimburse the United States or the State for additional costs of response if, prior to Certification of Completion of the Remedial Action:

- a. conditions relating to OU1, previously unknown to EPA, are discovered,
- or
- b. information, previously unknown to EPA, is received, in whole or in part,
- and these previously unknown conditions or information together with any other relevant

information indicates that the Remedial Action is not protective of human health or the environment.

87. Post-certification Reservations. Notwithstanding any other provision of this Consent Decree, the United States and the State reserve, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Settling Defendants (i) to perform further response actions relating to OU1 or (ii) to reimburse the United States or the State for additional costs of response if, subsequent to Certification of Completion of the Remedial Action:

- a. conditions relating to OU1, previously unknown to EPA, are discovered,
- or
- b. information, previously unknown to EPA, is received, in whole or in part,
- and these previously unknown conditions or this information together with other relevant information indicate that the Remedial Action is not protective of human health or the environment.

88. For purposes of Paragraph 86, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date the ROD was signed and set forth in the Record of Decision and the administrative record supporting the Record of Decision. For purposes of Paragraph 87, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date of Certification of Completion of the Remedial Action and set forth in the Record of Decision, the administrative record supporting the Record of Decision, the post-ROD administrative record, or in any information received by EPA pursuant to the requirements of this Consent Decree prior to Certification of Completion of the Remedial Action.

89. General Reservations of Rights. The covenants not to sue set forth above do not pertain to any matters other than those expressly specified in Paragraphs 84 and Paragraph 85.

The United States and the State reserve, and this Consent Decree is without prejudice to, all rights against Settling Defendants with respect to all other matters, including but not limited to, the following:

a. claims based on a failure by Settling Defendants to meet a requirement of this Consent Decree;

b. liability for performance of response activities or for response costs falling outside the definition of the OU1 Response Activities and Costs, including but not limited to:

(i) liability arising from the past, present, or future disposal, release, or threat of release of Waste Materials outside of the Site; (ii) liability for operable units at the Site other than OU1; and

(iii) liability for response costs for OU1 incurred by the United States or by the State before the Date of Lodging (specifically including, but not limited to, any additional liability for Unresolved EPA Past Costs or for Unresolved State Past Costs);

c. liability for future disposal of Waste Material at OU1, other than as provided in the ROD, the Response Work, or otherwise ordered by EPA;

d. liability, prior to Certification of Completion of the Remedial Action, for additional response actions at OU1 that EPA determines are necessary to achieve Performance Standards, but that cannot be required pursuant to Paragraph 15 (Modification of the SOW or Related Work Plans);

e. liability for damages for injury to, destruction of, or loss of natural resources at the Site, and for the costs of any natural resource damage assessments relating to the

Site (specifically including, but not limited to, any additional liability for natural resource damages beyond the NRD Commitment or for Unresolved DOI Past Costs);

f. liability for violations of federal or state law which occur during or after implementation of the Remedial Action; and

g. criminal liability.

90. Response Work Takeover. In the event EPA, in consultation with WDNR, determines that Settling Defendants have ceased implementation of any portion of the Response Work, are seriously or repeatedly deficient or late in their performance of the Response Work, or are implementing the Response Work in a manner which may cause an endangerment to human health or the environment, EPA and/or WDNR may assume the performance of all or any portions of the Response Work as EPA determines necessary. Settling Defendants may invoke the procedures set forth in Section XX (Dispute Resolution), Paragraph 65, to dispute EPA's determination that takeover of the Response Work is warranted under this Paragraph. Costs incurred by the United States and/or the State in performing the Response Work pursuant to this Paragraph shall be considered Specified Future Response Costs.

91. Notwithstanding any other provision of this Consent Decree, the United States and the State retain all authority and reserve all rights to take any and all response actions authorized by law.

XXIII. COVENANTS BY SETTLING DEFENDANTS

92. Settling Defendants' Covenant Not to Sue. Subject to the reservations in Paragraph 93, Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against the United States or the State with respect to the EPA Past Cost

Payments, the State Past Cost Payments, the DOI Past Cost Payments, the NRD Commitment, the OU1 Response Activities and Costs, or this Consent Decree, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through CERCLA Sections 106(b)(2), 107, 111, 112, 113 or any other provision of law;
- b. any claims against the United States (including any department, agency or instrumentality of the United States) or State (including any department, agency or instrumentality of the States) under CERCLA Sections 107 or 113, 42 U.S.C. §§ 9607 or 9613, related to the EPA Past Cost Payments, the State Past Cost Payments, the DOI Past Cost Payments, the NRD Commitment, or the OU1 Response Activities and Costs;
- c. any claims against the United States (including any department, agency or instrumentality of the United States) or State (including any department, agency or instrumentality of the States) under the United States Constitution, the Wisconsin Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law, related to the EPA Past Cost Payments, the State Past Cost Payments, the DOI Past Cost Payments, the NRD Commitment, or the OU1 Response Activities and Costs;
- d. any direct or indirect claim for disbursement from the Disbursement Special Account (established pursuant to this Consent Decree), except as provided by Paragraph 10; or
- e. any direct or indirect claim for disbursement from the Fox River Site Special Account.

Except as provided in Paragraph 95 (Waiver of Claims Against De Micromis Parties) and Paragraph 105 (Waiver of Claim-Splitting Defenses), these covenants not to sue shall not apply in the event that the United States or the State brings a cause of action or issues an order pursuant to the reservations set forth in Paragraph 86, Paragraph 87, or Subparagraphs 89.b to 89.e, but only to the extent that Settling Defendants' claims arise from the same response action, response costs, or damages that the United States or the State is seeking pursuant to the applicable reservation.

93. The Settling Defendants reserve, and this Consent Decree is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of the Settling Defendants' plans or activities. The foregoing applies only to claims which are brought pursuant to any statute other than CERCLA and for which the waiver of sovereign immunity is found in a statute other than CERCLA;

94. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

95. Waiver of Claims Against De Micromis Parties.

a. Settling Defendants agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Site, including for contribution, against any person where the person's liability to Settling Defendants with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if the materials contributed by such person to the Site contained less than 2.0 kilograms of polychlorinated biphenyls (which amounts to 0.002% of the total mass of polychlorinated biphenyls remaining at the Site, as estimated by the December 2002 Remedial Investigation Report).

b. This waiver shall not apply to any claim or cause of action against any person meeting the above criteria if EPA has determined that the materials contributed to the Site by such person contributed or could contribute significantly to the costs of response at the Site. This waiver also shall not apply with respect to any defense, claim, or cause of action that a Settling Defendant may have against any person if such person asserts a claim or cause of action relating to the Site against such Settling Defendant.

XXIV. [DELETED]

96. [DELETED]

97. [DELETED]

98. [DELETED]

99. [DELETED]

XXV. EFFECT OF SETTLEMENT AND CONTRIBUTION PROTECTION

100. Except as provided in Paragraph 95 (Waiver of Claims Against De Micromis Parties), nothing in this Consent Decree shall be construed to create any rights in, or grant any

cause of action to, any person not a Party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this decree may have under applicable law. Except as provided in Paragraph 95 (Waiver of Claims Against De Micromis Parties), each of the Parties expressly reserves any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto.

101. Statutory Contribution Protection. The Parties agree, and by entering this Consent Decree this Court finds, that the Settling Defendants are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2) for matters addressed in this Consent Decree. Settling Defendants' Related Parties are also entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), for “matters addressed” in this Consent Decree. For the purpose of this Paragraph 101, the “matters addressed” by this Consent Decree are the OUI Response Activities and Costs.

102. Credit for Payments Made and Work Performed.

a. The Parties agree and acknowledge that the Plaintiffs shall recognize that the Settling Defendants are entitled to full credit, applied against their liabilities for response costs and natural resource damages at the Site, for: (i) the EPA Past Cost Payments, (ii) the State Past Cost Payments; (iii) the DOI Past Cost Payments; (iv) the NRD Commitment; (v) all Specified Future Response Costs reimbursed under Paragraph 54; (vi) all response costs incurred and paid by the Settling Defendants in performing the Remedial Design under the July 2003

AOC and this Consent Decree; and (vii) the Allowable RD/RA Costs paid or reimbursed from the Escrow Account under Paragraph 11 of this Consent Decree and Appendix C; provided, however, that the credit ultimately recognized shall take into account and shall not include the amount of any recoveries by Settling Defendants of any portion of such payments from other liable persons, such as through a recovery under Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613. With respect to the Allowable RD/RA Costs, the recognized credit shall take into account and shall not include the amount of any disbursements from the Disbursement Special Account to the Escrow Account pursuant to Paragraph 10 of this Consent Decree and Appendix B. With respect to the NRD Commitment, the recognized credit may take into account, as appropriate, the value of restoration projects funded by the NRD Commitment.

b. As provided by Paragraph 30 of the API/NCR Consent Decree, the Plaintiffs shall recognize that Appleton Papers Inc. and NCR Corporation are entitled to full credit, applied against their liabilities for response costs at the Site, for the funds deposited in and disbursed from the Disbursement Special Account pursuant to Paragraph 10 of this Consent Decree and Appendix B. In addition, the Settling Defendants hereby agree and acknowledge that they shall recognize that Appleton Papers Inc. and NCR Corporation are entitled to full credit, applied against their liabilities for response costs at the Site, for the funds deposited in and disbursed from the Disbursement Special Account pursuant to Paragraph 10 of this Consent Decree and Appendix B.

103. The Settling Defendants agree that with respect to any suit or claim for contribution brought by them for matters related to this Consent Decree they will notify the United States and the State in writing no later than 20 days prior to the initiation of such suit or claim.

104. The Settling Defendants also agree that with respect to any suit or claim for contribution brought against them for matters related to this Consent Decree they will notify in writing the United States and the State within 20 days of service of the complaint on them. In addition, Settling Defendants shall notify the United States and the State within 20 days of service or receipt of any Motion for Summary Judgment and within 20 days of receipt of any order from a court setting a case for trial.

105. Waiver of Claim-Splitting Defenses. In any subsequent administrative or judicial proceeding initiated by the United States or the State for injunctive relief, recovery of response costs, or other appropriate relief relating to the Site, Settling Defendants shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Section XXII (Covenants Not to Sue by Plaintiffs).

XXVI. ACCESS TO INFORMATION

106. Settling Defendants shall provide to the Response Agencies, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at OU1 or to the implementation of this Consent Decree, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Response Work. Settling Defendants shall also make available to the Response Agencies, for purposes of investigation, information gathering, or testimony, their employees,

agents, or representatives with knowledge of relevant facts concerning the performance of the Response Work.

107. Business Confidential and Privileged Documents.

a. Settling Defendants may assert business confidentiality claims covering part or all of the documents or information submitted to Plaintiffs under this Consent Decree to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA and the State, or if EPA has notified Settling Defendants that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA, the public may be given access to such documents or information without further notice to Settling Defendants.

b. The Settling Defendants may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Settling Defendants assert such a privilege in lieu of providing documents, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the contents of the document, record, or information; and (vi) the privilege asserted by Settling Defendants. However, no documents, reports or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

108. No claim of confidentiality shall be made with respect to any data generated pursuant to the requirements of this Consent Decree, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

XXVII. RETENTION OF RECORDS

109. Until 10 years after the Settling Defendants' receipt of EPA's notification of Certification of Completion of the Response Work pursuant to Paragraph 45.b, each Settling Defendant shall preserve and retain all records and documents now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Response Work or liability of any person for response actions conducted and to be conducted at the Site, regardless of any corporate retention policy to the contrary. Until 10 years after the Settling Defendants' receipt of EPA's notification of Certification of Completion of the Response Work pursuant to Paragraph 45.b, Settling Defendants shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to the performance of the Response Work. At any time more than 5 years after Certification of Completion of Remedial Action by EPA pursuant to Consent Decree Subparagraph 44.b, the Settling Defendants may request Plaintiffs' assent to terminate the document retention period earlier for specified categories of records and documents. If Plaintiffs assent to any such request, the Plaintiffs assent shall be given in writing.

110. At the conclusion of this document retention period, Settling Defendants shall notify the United States and the State at least 90 days prior to the destruction of any such records or documents, and, upon request by the United States or the State, Settling Defendants shall deliver any such records or documents to EPA or WDNR. The Settling Defendants may assert

that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Settling Defendants assert such a privilege, they shall provide the Plaintiffs with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted by Settling Defendants. However, no documents, reports or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

111. Each Settling Defendant hereby certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information relating to its potential liability regarding the Site since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site and that it has fully complied with any and all requests for information pursuant to Section 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XXVIII. NOTICES AND SUBMISSIONS

112. Whenever, under the terms of this Consent Decree, written notice is required to be given or a report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the

P.O. Box 7921
Madison, WI 53707-7921

101 S. Webster St.
Madison, WI 53703

As to the Settling Defendants:

As to the P. H. Glatfelter Company

Thomas G. Jackson
Assistant General Counsel
P. H. Glatfelter Company
96 South George Street
York, PA 17401-1434

with a copy to:

David G. Mandelbaum
Ballard Spahr Andrews & Ingersoll, LLP
1735 Market Street, 51st Floor
Philadelphia, PA 19103-7599

As to WTM I Company:

J.P. Causey Jr.
Vice President & Corporate Secretary/WTM I Company
c/o Chesapeake Corporation
1021 E. Cary Street
Box 2350
Richmond, VA 23218-2350

with a copy to:

Nancy K. Peterson
Quarles & Brady LLP
411 East Wisconsin Avenue, Suite 2040
Milwaukee, Wisconsin 53202-4497

XXIX. EFFECTIVE DATE

113. The effective date of the original version of the Consent Decree shall be April 12, 2004, the date upon which it was entered by the Court. The effective date of the Amended Consent Decree shall be the date upon which the Amended Consent Decree is entered by the Court; provided, however, that the Settling Defendants hereby agree that they shall be bound upon the Date of Lodging of the Amended Consent Decree to comply with obligations of the

Settling Defendants specified in this Amended Consent Decree that arise before the date upon which this Amended Consent Decree is entered by the Court. In the event the Plaintiffs withdraw or withhold consent to the Amended Consent Decree before entry, or the Court declines to enter the Amended Consent Decree, then the preceding requirement to comply with requirements of the Amended Consent Decree upon the Date of Lodging of the Amended Consent Decree shall terminate and the parties shall be bound to comply with the original Consent Decree in this case. In the event that the Court does not enter this Amended Consent Decree, nothing in the preceding sentence shall bar any party from applying to the Court for any available relief pursuant to Fed. R. Civ. P. 60.

XXX. RETENTION OF JURISDICTION

114. This Court retains jurisdiction over both the subject matter of this Consent Decree and the Settling Defendants for the duration of the performance of the terms and provisions of this Consent Decree for the purpose of enabling any of the Parties to apply to the Court at any time for such further order, direction, and relief as may be necessary or appropriate for the construction or modification of this Consent Decree, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section XX (Dispute Resolution) hereof.

XXXI. APPENDICES

115. The following appendices are attached to and incorporated into this Consent Decree:

“Appendix A” is the Trustee Council Resolution relating to this Consent Decree.

“Appendix B” is the Appendix addressing Management of the Disbursement Special Account.

“Appendix C” is the Appendix addressing Escrow Account Management.

“Appendix D” is the form of Escrow Agreement (including the Amendments thereto).

“Appendix E” is the Appendix addressing Special Procedures for Restoration Work.

“Appendix F” is the July 2003 AOC (including the SOW for Remedial Design).

“Appendix G” is the map of OU1.

“Appendix H” is the 2002 ROD.

“Appendix H1” is the 2008 ROD Amendment.

“Appendix I” is the Amended Statement of Work for the Remedial Action.

“Appendix J” is the form of EPA Payment Directive.

XXXII. COMMUNITY RELATIONS

116. Settling Defendants shall propose to the Response Agencies the Settling Defendants' participation in the community relations plan to be developed by the Response Agencies. The Response Agencies will determine the appropriate role for the Settling Defendants under the Plan. Settling Defendants shall also cooperate with the Response Agencies in providing information regarding the Response Work to the public. As requested by the Response Agencies, Settling Defendants shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by the Response Agencies to explain activities at or relating to OU1.

XXXIII. MODIFICATION

117. Schedules specified in this Consent Decree for completion of the Response Work may be modified by agreement of the Response Agencies and the Settling Defendants. All such modifications shall be made in writing.

118. Except as provided in Paragraph 15 (“Modification of the SOW or related Work Plans”), no material modifications shall be made to the SOW without written notification to and

written approval of the United States, the State, Settling Defendants, and the Court.

Modifications to the SOW that do not materially alter that document may be made by written agreement between the Response Agencies and the Settling Defendants.

119. Nothing in this Decree shall be deemed to alter the Court's power to enforce, supervise or approve modifications to this Consent Decree.

XXXIV. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

120. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate. Settling Defendants consent to the entry of this Consent Decree without further notice.

121. If for any reason the Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

XXXV. SIGNATORIES/SERVICE

122. The undersigned representatives of each Settling Defendant, the undersigned representatives of the State, and the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice each certify that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such Party to this document.

123. Each Settling Defendant hereby agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree unless the United States has notified the Settling Defendants in writing that it no longer supports entry of the Consent Decree.

124. Each Settling Defendant shall identify, on the attached signature page, the name, address and telephone number of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to all matters arising under or relating to this Consent Decree. Settling Defendants hereby agree to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including, but not limited to, service of a summons.

XXXVI. FINAL JUDGMENT

125. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment between and among the United States, the State, and the Settling Defendants. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED.

*THE COURT'S APPROVAL AND ENTRY OF THIS
CONSENT DECREE SHALL BE SIGNIFIED BY ENTRY
OF A SEPARATE ORDER IN ACCORDANCE WITH
THE COURT'S ELECTRONIC CASE FILING
POLICIES AND PROCEDURES MANUAL*

United States District Judge

THE UNDERSIGNED PARTY enters into this Amended Consent Decree in the matter of United States and the State of Wisconsin v. P.H. Glatfelter Company and WTM I Company (E.D. Wis.), relating to Operable Unit 1 of the Lower Fox River and Green Bay Site.

6/13/08
Date

BHARAT MATHUR
Acting Regional Administrator *BM*
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604

June 5, 2008
Date

RICHARD MURAWSKI
Associate Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604

THE UNDERSIGNED PARTY enters into this Amended Consent Decree in the matter of United States and the State of Wisconsin v. P.H. Glatfelter Company and WTM I Company (E.D. Wis.), relating to Operable Unit 1 of the Lower Fox River and Green Bay Site.

FOR THE STATE OF WISCONSIN

6-12-08
Date

MATTHEW J. FRANK
Secretary
Wisconsin Department of Natural Resources
101 South Webster Street
Madison, WI 53703

6/12/08
Date

CYNTHIA R. HIRSCH
Assistant Attorney General
Wisconsin Department of Justice
17 West Main Street
Madison, WI 53702

THE UNDERSIGNED PARTY enters into this Amended Consent Decree in the matter of United States and the State of Wisconsin v. P.H. Glatfelter Company and WTM I Company (E.D. Wis.), relating to Operable Unit 1 of the Lower Fox River and Green Bay Site.

FOR P.H. GLATFELTER COMPANY

Date

Signature: _____

Name (print):

John P. Sakunski

Title:

Sr. Vice Pres. and Chief Financial Officer

Address:

96 South George Street

Suite 500

York, Pennsylvania 17401-1434

Agent Authorized to Accept Services on Behalf of Above-signed Party:

Name (print): _____

Title: _____

Address: _____

Ph. Number: _____

THE UNDERSIGNED PARTY enters into this Amended Consent Decree in the matter of United States and the State of Wisconsin v. P.H. Glatfelter Company and WTM I Company (E.D. Wis.), relating to Operable Unit 1 of the Lower Fox River and Green Bay Site.

FOR WTM I COMPANY

June 4, 2008
Date

Signature: _____
Name (print): J.P. CAUSBY JR.
Title: VICE PRESIDENT & SECRETARY
Address: WTM I COMPANY
c/o CHEESAPEAKE CORPORATION
1021 E. SARY STREET
BOX 2350
RICHMOND, VA 23218

Agent Authorized to Accept Services on Behalf of Above-signed Party:

Name (print): Nancy K. Peterson
Title: Attorney
Address: Quarles & Brady LLP
411 E. Wisconsin Avenue
Milwaukee, WI 53202
Ph. Number: 414-277-5515

Consent Decree Appendix A
Trustee Council Resolution relating to this Consent Decree

[See original Consent Decree]

Consent Decree Appendix B
Management of the Disbursement Special Account

[See original Consent Decree]

Consent Decree Appendix C
Escrow Account Management

1. Escrow Account Establishment. Pursuant to Consent Decree Paragraph 11, the Settling Defendants established an escrow account trust fund, known as the Fox River OU1 Escrow Account (the “Escrow Account”), with a duly-chartered federally-insured bank (the “Escrow Agent”). The funds in the Escrow Account shall continue to be held in trust for the performance of certain requirements of the Amended Consent Decree, and the United States and the State shall continue to be beneficiaries of the Escrow Account. The Escrow Account may be established and managed as several accounts or sub-accounts to address the different sources and uses of the funds paid into the Escrow Account.

2. Escrow Agreement Form and Requirements. The final Escrow Agreement (and Amendment No. 1 thereto) was approved by the Plaintiffs to ensure that the escrowed funds will be handled in accordance with the Consent Decree. The Escrow Agreement shall continue to instruct and authorize the Escrow Agent to apply, retain, or use the funds in the Escrow Account (and all interest or other income earned on funds deposited in the Escrow Account) in order to finance response actions taken or to be taken at or in connection with OU1 of the Site, but only in accordance with, and to the extent required by, the governing provisions of the Amended Consent Decree.

3. Monthly Financial Reports. The escrow agreement shall require that the Escrow Agent prepare and submit to the Response Agencies' Project Coordinators designated under the Consent Decree statements every month detailing money received and disbursed in the preceding month, and the balance in the Escrow Account on the date of the statement.

4. Disbursements from the Escrow Account, Generally. The Escrow Agent shall disburse certain funds from the Escrow Account to the United States and the State as payment of sums due under this Amended Consent Decree and shall disburse certain other funds from the Escrow Account to the Settling Defendants for reimbursement of Allowable RD/RA Costs and/or Allowable Restoration Work Costs. In addition, the Settling Defendants may direct the Escrow Agent to pay Allowable RD/RA Costs directly to a contractor or subcontractor responsible for the performance of the Response Work, or to pay Allowable Restoration Work Costs directly to a contractor or subcontractor responsible for the performance of Approved Restoration Work.

5. Disbursements from the Escrow Account.

a. Disbursements shall be made from the Escrow Account only for:

(1) payment of amounts due under Amended Consent Decree Subparagraph 53.b (Subsequent Payments and Disbursements for Natural Resource Restoration);

(2) payment or reimbursement of Allowable RD/RA Costs under Amended Consent Decree Paragraph 12 (OU1 Remedial Design) and Amended Consent Decree Paragraph 14 (OU1 Remedial Action);

(3) payment of Specified Future Response Costs payable to Plaintiffs under Amended Consent Decree Paragraph 54 (Payment of Specified Future Response Costs);

(4) a payment of any or all unexpended funds remaining in the Escrow Account to the Fox River Site Special Account within the EPA Hazardous Substance Superfund, to be retained and used to conduct or finance response actions at or in connection with the Site, or transferred by EPA to the EPA Hazardous Substance Superfund, in the event EPA and/or WDNR assume performance of all or any portions of the Response Work under Amended Consent Decree Paragraph 90 (Response Work Takeover);

(5) payment or reimbursement of Allowable Restoration Work Costs for Approved Restoration Work under Amended Consent Decree Paragraph 48;

(6) a partial refund payment to the Settling Defendants after Certification of Completion of Remedial Action by EPA pursuant to Amended Consent Decree Subparagraph 44.b, if requested by the Settling Defendants and approved by EPA, after a determination by EPA that the partial refund will leave a balance in the account that will be sufficient to fund the completion of the Response Work;

(7) [INTENTIONALLY DELETED]

(8) a refund payment of any and all unexpended funds paid pursuant to Subparagraphs 50.c.(3)-(5) of the Amended Consent Decree remaining in the Escrow Account, after a determination by the Plaintiffs that all pending disbursements from the Escrow Account have been made, in the event the Plaintiffs withdraw or withhold consent to the Amended Consent Decree before entry, or the Court declines to enter the Amended Consent Decree;

(9) a final payment of any and all unexpended funds remaining in the Escrow Account, after Certification of Completion of the Response Work by EPA pursuant to Amended Consent Decree Subparagraph 45.b, either: (i) as a final refund payment to the Settling Defendant, if a final refund payment is requested by the Settling Defendants within 180 days after Certification of Completion of the Response Work; or (ii) as a payment to the Fox River Site Special Account within the EPA Hazardous Substance Superfund, to be retained and used to conduct or finance response actions at or in connection with the Site, or transferred by EPA to the EPA Hazardous Substance Superfund, if a final refund payment is not requested by Settling Defendants within 180 days after Certification of Completion of the Response Work; and

(10) payment of fees, taxes, and expenses under Section 5.3 of the Escrow Agreement.

b. A disbursement from the Escrow Account shall only be made by the Escrow Agent after receipt of a duly executed escrow disbursement certificate in substantially the form set forth in the Escrow Agreement (attached hereto at Consent Decree Appendix D) at

Exhibit A (Form of Escrow Disbursement Certificate for Trustee-Sponsored Natural Resource Restoration Efforts), Exhibit B (Form of Escrow Disbursement Certificate for Payment or Reimbursement of Allowable RD/RA Costs), Exhibit C (Form of Escrow Disbursement Certificate for Payment of Specified Future Response Costs), Exhibit D (Form of Escrow Disbursement Certificate for Response Work Takeover), Exhibit E (Form of Escrow Disbursement Certificate for Payment or Reimbursement of Allowable Restoration Costs), Exhibit F (Form of Escrow Disbursement Certificate for Refund Payment to Settling Defendants), or Exhibit G (Form of Escrow Disbursement Certificate for Final Payment to Fox River Site Special Account).

c. Copies of any escrow disbursement certificate submitted to the Escrow Agent shall be submitted to all other Parties to this Amended Consent Decree in accordance with Amended Consent Decree Section XXVIII (Notices and Submissions), and shall be submitted to the other Parties in the same manner and on the same day that the escrow disbursement certificate is submitted to the Escrow Agent. No disbursement from the Escrow Account shall be made in response to an escrow disbursement certificate unless: (i) at least 10 business day have elapsed since the Escrow Agent received the escrow disbursement certificate; and (ii) the Escrow Agent has not received written notice within those 10 business days that a Party to this Amended Consent Decree objects to the requested disbursement and has invoked the dispute resolution procedures under Amended Consent Decree Section XX (Dispute Resolution) to resolve the objection.

d. In the event that the Existing Funds (as defined in Amendment No. 2 to the Escrow Agreement at Paragraph 1, which creates modified Subsection 1.e of the Escrow Agreement) and the Glatfelter Sub-account are both expended prior to Glatfelter's \$6,500,000 payment, due no later than January 15, 2008 pursuant to Amended Consent Decree Subparagraph 50.c.(4), disbursements shall be made solely from the WTM Sub-account until funds are deposited into the Glatfelter Sub-account at which time disbursements shall be made solely from the Glatfelter Sub-account until the balances in the WTM and Glatfelter Sub-accounts are equal. Thereafter, all disbursements shall be made in accordance with Subsection 4.d. of the Escrow Agreement (as set forth at Paragraph 2 of Amendment No. 2 to Escrow Agreement).

e. Refund payments under Subparagraphs 5.a.(6), 5.a.(8) and 5.a.(9)(i) above shall be processed according to the following principles (with terms as defined in the Escrow Agreement, as amended): (1) amounts refunded from the Existing Funds shall be distributed 50/50 to Glatfelter and WTM, and (2) amounts from the Sub-accounts shall be wholly refunded to the respective contributors (WTM or Glatfelter) to each Sub-account, unless EPA determines that a balance must remain in the Sub-accounts in which case an amount equal to one-half the required balance shall be left in each Sub-account, and any overage in the Glatfelter Sub-account shall be refunded exclusively to Glatfelter, and any overage in the WTM Sub-account shall be refunded exclusively to WTM.

6. Disbursements for Natural Resource Restoration. Beyond the \$500,000 initial payment for Trustee-sponsored natural resource damage restoration efforts required by Consent Decree Subparagraph 53.a, an additional \$2,500,000 deposited in the Escrow Account shall be earmarked and dedicated for natural resource restoration relating to the Site, as the remainder of

the NRD Commitment. That \$2,500,000 shall be disbursed from the Escrow Account as set forth in the following Subparagraphs: (i) for payment or reimbursement of Allowable Restoration Work Costs incurred for Approved Restoration Work to be performed by the Settling Defendants under Consent Decree Paragraph 48; and/or (ii) for payment to a Site-specific sub-account within the DOI NRDAR Fund, to finance Trustee-sponsored natural resource damage restoration efforts under Consent Decree Paragraph 49.

a. Disbursements shall be made from the Escrow Account in accordance with Consent Decree Paragraph 11 and Consent Decree Paragraph 48 for payment or reimbursement of Allowable Restoration Work Costs incurred for Approved Restoration Work to be performed by the Settling Defendants.

b. By no later than December 1, 2004, the following additional amount shall be disbursed from the Escrow Account to a Site-specific sub-account within the NRDAR Fund: \$1,250,000 less the total amount of all disbursements from the Escrow Account for Allowable Restoration Work Costs through September 30, 2004.

c. By no later than December 1, 2005, the following additional amount shall be disbursed from the Escrow Account to a Site-specific sub-account within the NRDAR Fund: \$1,250,000 less the total amount of all disbursements from the Escrow Account for Allowable Restoration Work Costs between October 1, 2004 and September 30, 2005.

[Note: The requirements of this Paragraph 6 have been satisfied.]

7. Disbursements for Specified Future Response Costs. Except for costs under Amended Consent Decree Section XV (Emergency Response) that are payable under Amended Consent Decree Subparagraph 54.a.(2), all Specified Future Response Costs incurred and billed by the United States and/or the State before Certification of Completion of Remedial Action by EPA pursuant to Amended Consent Decree Subparagraph 44.b shall be reimbursed from the Escrow Account, to the extent that such costs are not inconsistent with the National Contingency Plan. The procedures to be used for billing and reimbursing such Specified Future Response Costs are specified by the following Subparagraphs.

a. EPA Reimbursement. On a periodic basis, the United States will send Settling Defendants a cost summary that includes an EPA cost summary, showing direct and indirect costs incurred by EPA and its contractors, and a DOJ cost summary, showing costs incurred by DOJ and its contractors, if any. At any time after the bill has been sent to the Settling Defendants, the United States may submit a duly executed escrow disbursement certificate requesting that the Escrow Agent disburse the billed amount to EPA, subject to the dispute procedures established by pursuant to Amended Consent Decree Paragraph 68 and Section XX (Dispute Resolution) of the Amended Consent Decree.

b. State Reimbursement. On a periodic basis, the State will send Settling Defendants a cost summary that includes a WDNR cost summary, showing direct and indirect costs incurred by WDNR and its contractors, and a WDOJ cost summary, showing costs incurred by WDOJ and its contractors, if any. At any time after the bill has been sent to the Settling Defendants, the State may submit a duly executed escrow disbursement certificate requesting that the Escrow Agent disburse the billed amount to the State, subject to the dispute procedures

established by Amended Consent Decree Paragraph 68 and Section XX (Dispute Resolution) of the Amended Consent Decree.

8. Disbursements for the Remedial Design

a. Settling Defendant WTM I Company shall be entitled to seek disbursements from the Escrow Account for payment or reimbursement up to \$2 million in response costs incurred in performing its obligations under the July 2003 AOC and Consent Decree Paragraph 12, as Allowable RD/RA Costs. If the costs of performing the work required under the June 2003 AOC and Consent Decree Paragraph 12 exceed \$2 million, then Settling Defendant WTM I Company shall continue to perform and shall complete such work at its own expense, without additional reimbursement from the Escrow Account. [Note: The requirements of this Subparagraph have been satisfied.]

b. The Plaintiffs shall be entitled to seek disbursements from the Escrow Account for payment of all response costs incurred by Plaintiffs in overseeing the components of the Response Work performed under the July 2003 AOC and Amended Consent Decree Paragraph 12, as Specified Future Response Costs.

Consent Decree Appendix D

Escrow Agreement for the Fox River OU1 Escrow Account:

D1 - Escrow Agreement

D2 - Amendment No. 1 to Escrow Agreement

D3 - Amendment No. 2 to Escrow Agreement

Appendix D1

**ESCROW AGREEMENT
For the Fox River OUI Escrow Account**

Appendix D2

**AMENDMENT NO. 1 TO ESCROW AGREEMENT
For the Fox River OUI Escrow Account**

Appendix D3

AMENDMENT NO. 2 TO ESCROW AGREEMENT For the Fox River OUI Escrow Account

THIS AMENDMENT NO. 2 TO ESCROW AGREEMENT (this “Amendment”) for the Fox River OUI Escrow Account is effective as of _____, 2008 (the “Amendment No. 2 Effective Date”) by and among P. H. GLATFELTER COMPANY (“Glatfelter”), WTM I COMPANY (“WTM”), GW PARTNERS, LLC (“the LLC”), and DEUTSCHE BANK TRUST COMPANY AMERICAS (the “Escrow Agent”). Capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Escrow Agreement (as defined below).

RECITALS

- A. The United States and the State have filed an action, captioned United States and the State of Wisconsin v. P. H. Glatfelter Company and WTM I Company (E.D. Wis.) (the “Litigation”), pursuant to Sections 106 and 107 of CERCLA;
- B. The United States, the State, Glatfelter, and WTM negotiated a Consent Decree in the Litigation memorializing a settlement of claims on specified terms, which Consent Decree was approved and entered in a Decision and Order of the United States District Court for the Eastern District of Wisconsin (the “Court”) dated April 12, 2004 (the “Consent Decree”);
- C. Pursuant to the terms of the Consent Decree, Glatfelter, WTM, the LLC, and the Escrow Agent entered into an Escrow Agreement effective as of March 29, 2004 (the “Escrow Agreement”), for the benefit of the United States (on behalf of the EPA and the DOI) and the State (on behalf of the WDNR).
- D. The United States, the State, Glatfelter, and WTM further negotiated and executed an Agreed Supplement to Consent Decree that was filed with the Court in a corrected form on September 13, 2007 (the “Supplement”) providing for additional funds to be made available to fund response work with respect to OU1.
- E. The United States, the State, Glatfelter, WTM, and Menasha Corporation further negotiated and executed a Second Agreed Supplement to Consent Decree that was filed with the Court on November 13, 2007 (the “Second Supplement”) providing for additional funds to be made available to fund response work with respect to OU1.
- F. The United States, the State, Glatfelter, and WTM further negotiated an Amended Consent Decree, which is being executed as of the same date as this Amendment No. 2 by Glatfelter and WTM and will be lodged with the Court for entry.
- G. In furtherance of the terms of the Amended Consent Decree, the parties desire to amend the Escrow Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Section 1 - Funding of Escrow Account. The unnumbered paragraph of Section 1 of the Escrow Agreement shall be designated as Section 1.a, and the following subsections shall be added to Section 1 of the Escrow Agreement to read as follows (subsection 1.e. modifies that subsection as originally added to Section 1 of the Escrow Agreement by Amendment No. 1 to the Escrow Agreement):

e. All funds maintained in the Escrow Account, not including the Sub-accounts, but including without limitation all interest and income earned on the Account funds (but not the Sub-accounts funds), shall be segregated from the WTM Sub-account and the Glatfelter Sub-account, in one or more accounts or sub-accounts of the Escrow Account, and the aggregate amount of all such funds shall be referred to herein as the “Existing Funds.” All amounts paid by Menasha Corporation pursuant to the Second Supplement, and all interest and income earned on such funds, shall be placed with and treated thereafter as Existing Funds.

f. In addition to the amounts required to be paid into the Escrow Account under Subsection 1.a.-d. above, WTM shall pay a total of \$9,500,000 into the WTM Sub-account of the Escrow Account in accordance with the schedule specified by Paragraph 50.c.(3) of the Amended Consent Decree. The Escrow Agent shall deposit these funds into the WTM Sub-account and all funds deposited pursuant to this Subsection 1.f shall be deposited into the WTM Sub-account and segregated from other funds paid into the Escrow Account. All interest and income earned on the funds deposited into the WTM Sub-account shall be deemed part of the WTM Sub-account.

g. In addition to the amounts required to be paid into the Escrow Account under Subsection 1.a.-d. above, Glatfelter shall pay a total of \$9,500,000 into the Glatfelter Sub-account of the Escrow Account in accordance with the schedule specified by Paragraph 50.c.(4) of the Amended Consent Decree. As specified in that Subparagraph, \$3,000,000 shall be paid initially into the Glatfelter Sub-account and an additional \$6,500,000 of that payment shall be secured through an irrevocable letter of credit (the “2009 LC”) on the terms set forth in Subparagraph 50.c.(4) of the Amended Consent Decree. At least five (5) business days before finalizing the 2009 LC, Glatfelter shall afford the United States, the State and WTM an opportunity to review the proposed letter of credit to assess whether it conforms to the requirements of Subparagraph 50.c.(4) of the Amended Consent Decree. The Escrow Agent shall deposit the initial \$3,000,000 and the subsequent \$6,500,000 (whether drawn under the 2009 LC or paid by Glatfelter in lieu of drawing on the 2009 LC) into the Glatfelter Sub-account and segregated from other funds paid into the

Escrow Account. All interest and income earned on the funds deposited into the Glatfelter Sub-account shall be deemed part of the Glatfelter Sub-account.

h. Pursuant to Subparagraph 50.c.(4) of the Amended Consent Decree, Glatfelter has the option of depositing into the Escrow Sub-account immediately available funds in the amount of \$6,500,000 in substitution for the undrawn 2009 LC before January 15, 2009. In the event that Glatfelter makes such deposit of funds, said funds shall be deposited into the Glatfelter Sub-account and segregated from other funds paid into the Escrow Account. All fees, taxes and expenses (including without limitation expenses, fees and attorneys' fees of the Escrow Agent) associated with the 2009 LC, or its cancellation, shall be paid by Glatfelter and not from the Escrow Account, or any of its Sub-accounts.

i. If Glatfelter and WTM make any additional payments to the Escrow Account as provided for in Subparagraph 50.c.(5) of the Amended Consent Decree, each company's payment shall be deposited into that company's respective Sub-account, together with all interest and income earned on the fund so deposited.

2. Section 4 - Order of Disbursement of Funds. Subsection 4.d of the Escrow Agreement shall be modified and Subsection 4.e. shall be added to read as follows:

d. The Escrow Agent shall disburse the funds held in the Escrow Account to make payments in accordance with Section 4.a of the Escrow Agreement as follows: (1) first from the Existing Funds until the entire amount of the Existing Funds, including all interest and income earned on the Existing Funds, have been fully expended, and then (2) from the WTM Sub-account and the Glatfelter Sub-account in equal amounts, on a 50/50 basis.

e. In the event that the Existing Funds and Glatfelter Sub-account are both expended (i.e., have a balance of \$0) prior to Glatfelter's \$6,500,000 payment, due no later than January 15, 2009 pursuant to Amended Consent Decree Subparagraph 50.c.(4), disbursements shall be made solely from the WTM Sub-account until funds are deposited into the Glatfelter Sub-account at which time disbursements shall be made solely from the Glatfelter Sub-account until the balances in the WTM and Glatfelter Sub-accounts are equal. Thereafter, all disbursements shall be made in accordance with Subsection 4.d. of the Escrow Agreement (as set forth in Paragraph 2.d. of this Amendment No. 2).

3. Continuance of Escrow Agreement. Except as specifically amended by this Amendment No. 2, the Escrow Agreement, as amended by Amendment No. 1, shall remain in full force and effect.

4. Binding Effect. This Amendment No. 2 shall be binding upon Glatfelter, WTM, the LLC, the Escrow Agent, and their respective successors and assigns.

5. Severability. If any section of this Amendment No. 2, or portion thereof, shall be adjudged illegal, invalid, or unenforceable, such illegality, invalidity, or unenforceability shall not affect the legality, validity, or enforceability of this Amendment No. 2, as a whole, or of any other section or portion thereof not so adjudged.

6. Governing Law. This Amendment No. 2 shall in all respects be governed by, and construed in accordance with, the laws of the State of Wisconsin applicable to agreements made and to be performed entirely within such State, including without limitation all matters of construction, validity, and performance; *provided, however,* that the rights and duties of the Escrow Agent shall be governed under New York law..

7. Interpretation. As used in this Amendment No.2, words in the singular include the plural and words in the plural include the singular; the masculine and neuter genders shall be deemed to include the masculine, feminine and neuter. The section headings contained in this Amendment No. 2 are for reference purposes only and shall not affect in any way the meaning or interpretation of this Amendment No. 2.

8. Counterparts. This Amendment No. 2 may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. Each of the parties to this Amendment No. 2 agrees that a signature affixed to a counterpart of this Amendment No. 2 and delivered by facsimile or electronic transmission by any person is intended to be its, his, or her signature and shall be valid, binding and enforceable against such person.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Amendment No. 2 as of the Amendment No. 2 Effective Date.

P. H. GLATFELTER COMPANY

By: _____
Its: _____

WTM I COMPANY

By: _____
Its: _____

GW PARTNERS, LLC

By: _____
Its: _____

By: _____
Its: _____

DEUTSCHE BANK TRUST COMPANY
AMERICAS as Escrow Agent

By: _____
Its: _____

The forgoing Amendment No. 2 is hereby approved by the Beneficiaries as of the Amendment No. 2 Effective Date.

FOR THE UNITED STATES OF AMERICA

RONALD J. TENPAS
Assistant Attorney General
Environmental and Natural Resources Division

RANDALL M. STONE
Senior Attorney
Environmental Enforcement Section
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FOR THE STATE OF WISCONSIN

BRUCE BAKER
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Wisconsin Department of Natural Resources

CYNTHIA HIRSCH
Assistant Attorney General
Wisconsin Department of Justice

The forgoing Amendment No. 2 is hereby approved by the Beneficiaries as of the Amendment No. 2 Effective Date.

FOR THE UNITED STATES OF AMERICA

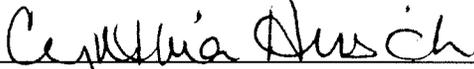
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Wisconsin Department of Justice

Consent Decree Appendix E
Special Procedures for Restoration Work

[See original Consent Decree]

Consent Decree Appendix F

**Administrative Order on Consent between WTM I Company, EPA, and WDNR, captioned
In the matter of the Lower Fox River and the Green Bay Site, Docket No. V-W-'03-C-745
(including the Statement of Work for Remedial Design)**

[See original Consent Decree]

Consent Decree Appendix G
Map of Operable Unit 1

[See original Consent Decree]

Consent Decree Appendix H
Record of Decision for Operable Units 1 and 2

[See original Consent Decree]

Consent Decree Appendix H1
Amended Record of Decision for Operable Unit 1



Record of Decision Amendment

Operable Unit 1

Lower Fox River and Green Bay Superfund Site

June 2008

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APPENDICES

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Abbreviations and acronyms used in this document

Agencies	Wisconsin Department of Natural Resources and United States Environmental Protection Agency
Amended Remedy	Remedy selected in Record of Decision Amendment, Operable Unit 1, Lower Fox River and Green Bay Superfund Site
ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cy	cubic yards
footprint	Areas that encompass the 1 ppm PCB Remedial Action Level
kg	Kilograms
MNR	Monitored Natural Recovery
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
O&M	operation and maintenance
OU	Operable Unit
OU 1	Little Lake Butte des Morts reach
OU 2	Appleton to Little Rapids reach
OU 3	Little Rapids to De Pere reach
OU 4	De Pere to Green Bay reach
OU 5	Green Bay
PCB	polychlorinated biphenyl
ppm	parts per million
PRPs	Potentially Responsible Parties under CERCLA
RAL	Remedial Action Level
RAO	Remedial Action Objective
RIFS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RS	Responsiveness Summary
Site	Lower Fox River and Green Bay Site
Design Supplement	OU1 Design Supplement, Lower Fox River Operable Unit 1, November 2007
SWAC	Surface Weighted Average Concentration
TSCA	Toxic Substances Control Act
EPA	United States Environmental Protection Agency
WDNR	Wisconsin Department of Natural Resources
2002 ROD	Record of Decision, Operable Units 1 and 2, Lower Fox River and Green Bay Site, December 2002
2003 ROD	Record of Decision, Operable Units 3, 4, and 5, Lower Fox River and Green Bay Site, June 2003

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Record of Decision Amendment, Operable Unit 1 Outagamie and Winnebago Counties, Wisconsin

I. Introduction

Reasons for a Change in Remedy

This Record of Decision Amendment (ROD Amendment) for the Lower Fox River and Green Bay Site (Site) selects and explains an Amended Remedy that makes changes to parts of the remedy described in the Record of Decision for Operable Unit 1 (OU 1) of the Site, dated December 20, 2002 (2002 ROD). The ROD Amendment for Operable Units 2, 3, 4, and 5, dated June 26, 2007 (2007 ROD Amendment), is not affected by this amendment. This ROD Amendment is being issued by the United States Environmental Protection Agency (EPA) and the Wisconsin Department of Natural Resources (WDNR) under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. §§ 9601-9675.

As explained below, the Amended Remedy is being adopted in response to new information that has been collected and analyzed since the 2002 ROD was issued. The 2002 ROD selected dredging and a contingency remedy (which allowed capping). This new information was obtained through experience with full-scale remediation activities in OU 1, and during intensive data collection and evaluation efforts performed as part of the remedial design for OU 1. For example, a wealth of new sediment data was collected and analyzed during 2003-2004 and 2006-2007 sediment collection activities in OU 1, including more than 5949 sediment samples at 996 locations, with 129 locations having no recoverable sediments. This new information can be found in the Administrative Record.¹

Most of the new information for OU 1 is compiled and analyzed in the "OU1 Design Supplement Lower Fox River Operable Unit 1," dated November 16, 2007 (Design Supplement), approved by EPA and WDNR on November 20, 2007. The Design Supplement was developed by two Potentially Responsible Parties (PRPs), P.H. Glatfelter Company and WTMI Company, as part of the remedial design for OU 1. In addition to the Design Supplement, the PRPs submitted a document entitled "Concept Paper, Lower Fox River Operable Unit 1," dated November 19, 2007 (Concept Paper) which summarized and explained key aspects of the proposed design changes. The remedial design and remedial actions required under the 2002 ROD have been funded and implemented under a settlement agreement between the PRPs and EPA and WDNR. EPA and WDNR are overseeing all aspects of design evaluations prepared by the PRPs, as well as remedial actions required by the 2002 ROD.

¹ The Administrative Record contains detailed information EPA considered in selection of this Amended Remedy, and is available at the DNR Northeast Region office, 2984 Shawano Ave., Green Bay, Wis.; DNR Bureau of Watershed Management, 3rd Floor, 101 S. Webster St., Madison, Wis.; and the EPA Records Center, 7th floor, 77 W. Jackson Blvd., Chicago, Ill.

The new data and analyses presented in the Design Supplement and the Concept Paper showed that:

1. Polychlorinated biphenyls (PCBs) are more heavily concentrated in discrete areas in OU 1; and
2. The total PCB mass in the 1.0 ppm prism² is less than predicted in the ROD, amounting to 2/3 of the 2002 ROD estimate; and
3. PCBs are present at low concentrations (i.e., slightly above the PCB Remedial Action Level (RAL) of 1.0 ppm) in areas containing large volumes and relatively thin deposits of contaminated sediment.

Additionally, operational experience shows that:

1. A specified dredge-line can only be attained if a dredging contractor is provided with an overcut allowance. Based on dredging experience in OU 1, an average 4-inch overcut is necessary to attain a dredge cut line to a degree of accuracy that attains remediation results that are acceptable to the Agencies. This results in additional dredging volume. This additional volume of material was not accounted for in the 2002 ROD and thus the total dredging cost was underestimated.
2. When the 1.0 ppm RAL cutline (elevation) is achieved, experience in OU 1 has demonstrated that all sediment containing more than 1.0 ppm PCBs can often be removed by dredging. However, generated dredge residuals sometimes remain above 1.0 ppm PCBs. Thus, a sand cover over selected areas having dredge residuals would be required in order to meet the Surface Weighted Average Concentration (SWAC) goal specified in the 2002 ROD. Sand cover costs were also not accounted for in the 2002 ROD estimate.
3. The cost of implementing the all-dredging remedy set forth in the 2002 ROD would be more than twice the cost estimated in the 2002 ROD. Based on additional data and operational experience discussed above, the current estimate for the 2002 ROD Remedy is \$144 million, an increase of \$78 million compared to the \$66 million estimated by the 2002 ROD.
4. Dredging, capping and sand covering options are all implementable and environmentally protective.

Based upon this newly-obtained information, WDNR and EPA have determined that it is appropriate to modify the 2002 ROD remedy by selecting the Amended Remedy described in this ROD Amendment. WDNR and EPA are jointly signing this ROD

² The 1 ppm PCB dredge prism is the area and volume of sediments that includes all contaminated sediments that have PCB concentrations 1 ppm or greater.

Amendment. This Amended Remedy will be comparably protective or more protective, be completed faster, reduce risks sooner, and be more cost effective than the 2002 ROD Remedy.

II. Site History

For many years, a large number of paper production facilities have been and continue to be concentrated along the Lower Fox River. Some of the facilities manufactured a particular type of carbonless copy paper containing PCBs. Some of the other facilities reprocessed PCB-containing waste paper and used it as feedstock for the production of other paper products. In both of these processes, PCBs were released from the paper production facilities to the Fox River directly, or after passing through municipal wastewater treatment plants. PCBs were then transported within the river system as PCBs have a tendency to sink and adhere to sediments in the river bottom. As a result, PCB contaminated sediments are found in 39 mile stretch of the Lower Fox River and Green Bay.

Additional details on Site history appear in the 2002 ROD.

III. Site Location and Description

The Lower Fox River and Green Bay Site (“the Site”) includes approximately 39 miles of the Lower Fox River (referred to herein as “the River”) as well as the Bay of Green Bay (referred to herein as “the Bay”) – see Figure 1 below. The River portion of the Site extends from the outlet of Lake Winnebago and continues downstream to the mouth of the River at Green Bay, Wisconsin. The Bay portion of the Site includes all of Green Bay, from the City of Green Bay to the point where Green Bay enters Lake Michigan.

EPA and WDNR have organized the Site into five Operable Units (OUs) and those OUs are addressed by two RODs and the 2007 ROD Amendment. These OUs, divided on the basis of similar features, characteristics and dam locations, are described in Table 1 and shown in Figure 1 below.

Lower Fox River PCB Contaminated Sediments Deposits

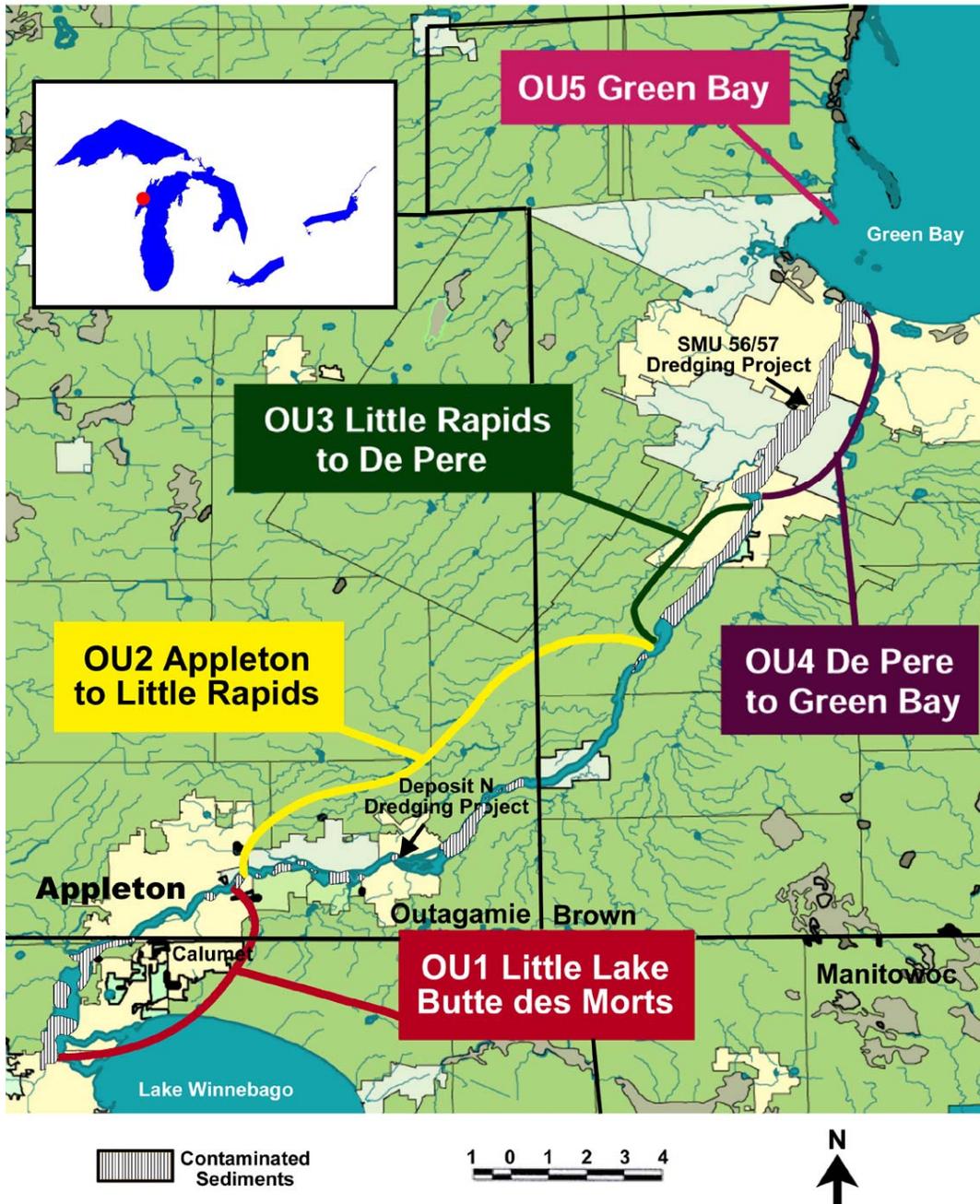


Figure 1. Lower Fox River PCB-Contaminated Sediment Deposits and Operable Units

TABLE 1. Operable Units and Previously Selected Remedies

ROD	Operable Unit	Location	Remedy
2002 ROD	1	Little Lake Butte des Morts	Dredging and disposal
	2	Appleton to Little Rapids	Monitored Natural Recovery
2007 ROD Amendment	3 (and OU 2 Deposit DD)	Little Rapids to De Pere	Dredging and disposal, Capping and Sand Covers
	4	De Pere to Green Bay	Dredging and disposal, Capping and Sand Covers
2007 ROD Amendment and 2003 ROD	5	Green Bay	Monitored Natural Recovery

This ROD Amendment addresses OU 1. With the exception of the remedial activities at Deposit DD, the remedy for OU 2 is unchanged from the 2002 ROD.

IV. Site Characteristics

Section 6 of the 2002 ROD provides a complete description of the characteristics of the Site. Additional post-ROD information regarding Site characteristics is in the Design Supplement, and is summarized in the Introduction above (new information).

V. Site Risks

Section 8 of the 2002 ROD provides a complete description of the risks to human health and the environment posed by the PCB-contaminated sediments at the Site. However, general conclusions from the Risk Assessments at the site are:

- The primary contaminant of concern is PCBs.
- Human health and ecological receptors are at risk from PCB bioaccumulation.

- Fish consumption is the exposure pathway presenting the greatest risk for human health and ecological receptors.

VI. Agency Evaluations and Decisions

A. Site Evaluations and Remedy Selection Decisions

The Agencies have conducted extensive evaluations, particularly beginning in 1989 with the Green Bay Mass Balance Study, as well as demonstration projects in two discrete areas of the river (known as Deposit N/O and Sediment Management Unit 56/57) from 1998 – 2000. Details of these projects are discussed in the 2002 and 2003 RODs.

WDNR released the draft Remedial Investigation/Feasibility Study (RIFS) for public review and comment in February 1999. The early release in the planning process of the draft RIFS for public comment allowed the Agencies to better evaluate public acceptance of cleanup alternatives. Comments were received from governmental agencies, the public, environmental groups, and private-sector corporations. These comments were used to revise and refine the scope of work that led to the finalization of the RIFS and Proposed Plan released for public comment in October 2001. Comments received from the PRPs, the public, and independent peer review committees were incorporated into the final RIFS. In December 2002, EPA and WDNR signed the ROD for OU 1 and OU 2. The 2002 ROD called for active remediation in OU 1 (i.e., dredging, with a capping contingency remedy) and “Monitored Natural Recovery” (MNR) in most of OU 2. In June 2003, a ROD was signed for OU 3, OU 4 and OU 5. The 2003 ROD called for active remediation in OU 2 (deposit DD), OU 3, OU 4 and MNR for OU 5. In 2006, upon completion of collecting additional sediment data and based upon additional analyses, the Agencies issued a Proposed Plan to modify the 2003 ROD for OUs 2 (deposit DD), OU 3, OU 4 and OU 5 (near the mouth of the river). Comments received from the public were incorporated into the 2007 ROD Amendment, which modified the original decision for OU 3, 4 and 5 from all-dredging to a combination of dredging, capping and sand covers.

B. Remedial Action Objectives

The 2002 and 2003 RODs adopted the same Site-wide Remedial Action Objectives (RAOs). Those RAOs are unchanged by this ROD Amendment. RAOs address protection of human health and the environment. No numeric cleanup standards have been promulgated by the federal government or the State of Wisconsin for PCB-contaminated sediment. Therefore, site-specific RAOs to protect human health and the environment were developed based on available information and standards, such as “Applicable or Relevant and Appropriate Requirements” (ARARs), guidelines that are referred to as factors “to be considered,” and risk-based PCB chemical concentration levels established using the human and ecological risk assessments performed at the Site. As discussed in detail in Section 9 of the 2002 ROD, the following five RAOs have been established for the Lower Fox River and Green Bay Site.

- **RAO 1: Achieve, to the extent practicable, surface water quality criteria throughout the Lower Fox River and Green Bay.** This RAO is intended to reduce PCB concentrations in surface water as quickly as possible. The current water quality criteria for PCBs are 0.003 nanograms per liter (ng/L) for the protection of human health, and 0.012 ng/L for the protection of wild and domestic animals. Water quality criteria incorporate all routes of exposure assuming the maximum amount is ingested daily over a person's (or animals) lifetime.
- **RAO 2: Protect humans who consume fish from exposure to Contaminants of Concern (COCs) that exceed protective levels.** This RAO is intended to protect human health by targeting removal of fish consumption advisories as quickly as possible. The WDNR and EPA defined the expectation for the protection of human health as recreational and high intake fish consumers being able to safely eat unlimited amounts of fish within 10 years to 30 years, respectively.
- **RAO 3: Protect ecological receptors from exposure to COCs above protective levels.** RAO 3 is intended to protect ecological receptors such as invertebrates, birds, fish, and mammals. WDNR and EPA defined the ecological expectation of achieving safe ecological thresholds for fish-eating birds and mammals within 30 years following remedy completion. Although the Feasibility Study did not identify a specific time frame for evaluating ecological protection, the 30-year figure was used as a measurement tool.
- **RAO 4: Reduce transport of PCBs from the Lower Fox River into Green Bay and Lake Michigan.** The objective of this RAO is to reduce the transport of PCBs from the River into the Bay and Lake Michigan as quickly as possible. The WDNR and EPA defined the transport expectation as a reduction in loading to the Bay and Lake Michigan to levels comparable to the loading from other Lake Michigan tributaries. This RAO applies to each OU encompassing part of the River (sometimes referred to as River "reaches").
- **RAO 5: Minimize the downstream movement of PCBs during implementation of the remedy.** This objective would minimize as much as feasible the release of contaminants during remedial activities such as dredging, capping or placing sand covers.

C. New Information Gathered During 2003-2004 and 2006-2007 Sampling and 2004-2007 Remedial Activities and Its Bearing on the 2002 ROD

During sampling and analysis in 2003-2004 and 2006-2007, new PCB data from more than 5,900 sediment samples at 996 core locations was collected and analyzed in OU 1.³ The results of that sampling are presented in the Design Supplement, and several significant findings based on that sampling data are summarized above in

³ From page 10 of the Design Supplement.

Section I. Four of those findings are discussed in greater detail below, namely: (1) PCBs are more heavily concentrated in discrete areas in OU 1; (2) the total PCB mass in the prism that includes all contaminants above 1.0 ppm is less than predicted in the ROD, amounting to 2/3 of the 2002 ROD estimate; (3) it is now projected that the SWAC goals established by the 2002 ROD would not be met for a dredge only remedy even if the entire targeted volume of contaminated sediment were dredged; and (4) PCB concentrations in areas containing large volumes of contaminated sediment are low, with many areas only marginally above the Remedial Action Level (RAL) of 1.0 ppm.

Additionally, experience in dredging approximately 335,000 cy of PCB contaminated sediments and a cap placement test in OU 1 in 2007 demonstrated: (1) the need to “over-dredge” (discussed below); (2) some areas would still have elevated PCB concentrations even after dredging attempted to remove all contaminated sediments above the 1 ppm RAL (even after overdredging); and (3) both dredging and capping are implementable in OU 1.

1. PCBs are more heavily concentrated in discrete areas

As shown in Table 2 below, PCBs were determined to be more concentrated within discrete areas than was known prior to the 2002 ROD. For example, based on more recent data (i.e., 2003-2004 and 2006–2007 sampling and analysis), Sub-areas A, E and POG (shaded in Table 2 below) had 93.6 % of the total PCB mass compared to 63.5 % of the total mass based on the RIFS (1989 - 1999) data. Based on this information, recovery of a greater percentage of PCBs with targeted removal of the most highly contaminated sediments is expected.

Table 2. Comparison of OU 1 PCB Mass Estimates Within 1.0 ppm Prism

Sub-area	1989 - 1999 RIFS ¹		2003 – 2007 Post-RIFS ²	
	kg	% of total	Kg	% of total
A	237	16.6	218.3	19.1
B	409	28.5	0	0
C	35	2.4	33.5	2.9
D	78	5.4	37.6	3.3
E	373	26.0	331.4	29.0
F	3	0.002	2.5	0.002
G	0	0	0	0
H	0.4	0.0003	0	0
POG	299	20.9	519.5	45.5
TOTAL	1,434.4	99.8 ³	1,142.8	99.8 ³

Table Notes:

Table adapted from Table 2-1, page 12, Design Supplement.

Shaded cells are contaminated sediment deposits removed during 2004 – 2007 dredging activities.

¹ Source: December 2002 RI, Table 5-14; December 2002 FS, Table 5-3. Data was compiled from data collected from 1989 – 1999.

² Source: Data collected in 2004 – 2004 and 2006 – 2007.

³ Percent total is not 100 % because of rounding.

2. The Increased Sediment Volume Estimate

In order to ensure more complete removal of targeted sediments above the 1 ppm PCB RAL, OU 1 dredging operations demonstrated the need to remove an additional 4-inches of sediment. This additional dredge cut below the targeted dredge elevation is referred to as dredge overcut. With an average thickness of 1-foot of sediment to the 1 ppm PCB RAL in OU 1, an additional 4-inch overcut increases the actual dredge volume under the 2002 ROD remedy by 29% (from 721,200 cy to 928,400 cy). While the practical necessity of a dredge overcut was generally acknowledged in the Lower Fox River Feasibility Study (FS), the increased volume and cost implications was not addressed in the FS or the 2002 ROD.

3. The Revised SWAC Projections for the 2002 ROD Remedy

In addition to identifying a larger volume of sediment that would need to be removed under the 2002 ROD, the additional sampling and analyses performed during the remedial design process showed that dredging remedy alone would not meet the PCB SWAC goals as originally envisioned in the 2002 ROD. Specifically, concentrations would be reduced from an average PCB SWAC of 1.9 ppm to 0.48 ppm by dredging alone⁴ whereas a combination of dredging higher concentration areas, capping and sand covers over lower concentrations would achieve a PCB SWAC of 0.25 ppm. There are two main reasons why dredging alone would not meet PCB SWAC goals.

- First, even if all sediment exceeding the 1.0 ppm PCB RAL is dredged in an area, the post-dredging surface concentrations may still exceed 1.0 ppm PCBs. That is because experience with dredging projects at OU 1 and other dredging projects has shown that the dredging process itself commonly re-suspends some contaminated sediment that is then re-deposited in a thin layer on top of the newly-dredged area. That re-deposited contamination is called “generated residuals.”⁵ The 2002 ROD stated that generated residuals could be addressed by re-dredging and/or placement of sand covers over dredged areas.
- Second, contrary to earlier expectations, the recent sampling data shows that large areas of relatively low PCB levels on the surface of undredged areas (i.e.,

⁴ From page 10 of the Concept Paper, November 19, 2007.

⁵ In this ROD Amendment, the term “generated residuals” is used to describe contaminated sediment that is re-deposited at the surface of a newly-dredged area (i.e., in the top six inches of the sediment surface). A different term – “undisturbed residuals” – is used to describe contaminated sediment that is more than six inches below the surface of a newly-dredged area.

in areas with no sediment exceeding the 1.0 ppm PCB RAL) might prevent an all-dredging remedy from reaching the OU-wide SWAC goals. If an all-dredging remedy did not meet those SWAC goals by the completion of active remediation, then additional time would be required for further reductions in surface concentrations through sediment deposition processes (before RAOs could be achieved).

4. Operational Experience at OU 1

Approximately 335,000 cubic yards have been dredged at OU 1 from 2004-2007. Operations have been refined and improved based on contractor experience. For example, a sediment screening and thickener was added to the dewatering process in 2006, improving efficiency of the dewatering operation by reducing the volume of water being pumped into the geotextile tubes and significantly improving dewatering operations. A slight (i.e., approximately 3 to 4 days out of a total 30 days) reduction in the time needed for dewatering was realized.

In addition to dredging and sand covering operations dredged residuals, cap placement test studies were also conducted in 2007. These test studies demonstrated the ability to consistently place a 6-inch sand layer overlain by 7-inches of armor stone (i.e., ASTM C33 gradation for fine aggregates and 1 ¼ inch-minus stone meeting C33 gradation for coarse aggregate No. 467). Other aspects relating to capping construction that were successfully evaluated included methods of cap material placement, production rates of material placement, sediment consolidation, monitoring and verification procedures, stability of underlying sediment, and impact to water quality during placement (which has been minimal). Some of these aspects, such as sediment consolidation, and monitoring and verification procedures will be further evaluated after construction completion.

The dredging experience and cap placement test studies have both demonstrated the viability and implementability of these operations.

5. Summary of 2002 ROD Remedy and Relevance Regarding New Information and Findings

A comparison of the Remedy Amendment and the 2002 ROD remedy follows below, and in Table 6, page 42.

- **Sediment removal.** The 2002 ROD called for removal of all sediment with a PCB concentration exceeding the 1.0 ppm RAL. The estimated volume of the sediment that would need to be removed under that remedy has increased. As discussed above in Section I, it is now estimated that approximately 928,400 cy of sediment would need to be dredged under the remedy selected by the 2002 ROD, in light of new sampling data and overdredge allowance. The 2002 ROD originally estimated approximately 784,200 cy would be removed, as it did not include overdredging volumes.

- **Sediment dewatering and disposal.** The 2002 ROD envisioned that contaminated sediment would be dewatered using mechanical processes similar to those used at other Fox River dredging projects (e.g., plate and frame presses). Experience at OU 1 has shown that geotextile tubes have proven to be effective for dewatering dredged sediments from OU 1.
- **Water treatment.** Water generated by dredging and dewatering operations will be treated prior to discharging it back to the Fox River to meet State and federal water quality standards, consistent with the 2002 ROD.
- **Capping.** A capping contingency plan included in the 2002 ROD allowed for the use of an engineered cap in limited areas it was shown to be protective and less costly than dredging. At a minimum, an Explanation of Significant Differences would have been required prior to implementation of capping. The capping portion of the Amended Remedy is consistent with the capping contingency allowed in the 2002 ROD.
- **Long-term monitoring.** Long-term monitoring of surface water and biota would continue until PCB concentrations and exposures are below risk levels.
- **Institutional controls.** Institutional controls (e.g., fish advisories) would be maintained to minimize human and ecological exposures to contaminants.
- **RAL and SWAC.** Sediments with PCB concentrations greater than the 1.0 ppm RAL were targeted for removal. The 2002 ROD stated that SWAC levels of approximately 0.25 ppm PCB would be achieved if all sediment above the 1.0 ppm RAL were removed by dredging. If all sediments above the 1.0 ppm RAL were not removed in OU 1 due to dredge-generated residuals remaining in dredge areas, then the 2002 ROD indicated that a SWAC of approximately 0.25 ppm for OU 1 could be met by other means, such as redredging, capping or placement of sand cover on dredged residual. The specific SWAC goals in the 2002 ROD were 0.25 ppm.
- **Natural recovery after remediation.** Although the 2002 ROD specified that the RAL requirement or SWAC goal would need to be met immediately after the completion of dredging in a particular OU, it was also recognized that it would take additional time for natural recovery before some of the RAOs would be achieved. For example, the 2002 ROD estimated that a SWAC of approximately 0.25 ppm PCBs would be achieved at construction completion, but the 2002 ROD also estimated that it would take another 14 years before reduced PCB levels in fish tissue would allow relatively safe consumption of walleye for high-intake consumers. If the 2002 ROD remedy did not achieve the SWAC goal, longer natural recovery periods would be required to meet RAOs.

- **Costs.** Based on new information gathered after issuing the 2002 ROD, the cost of implementing the 2002 ROD remedy in OU 1 is currently projected at \$144 million. The 2002 ROD originally estimated the cost at \$66.2 million. The lower cost estimate in the 2002 ROD did not include dredging overcut volumes. The additional volume is significant in OU 1 due to thin contaminant zones. The added volume increases costs for dewatering, transportation and disposal.

VII. Procedure for Changing the Remedy

Under CERCLA Section 117(c), 42 U.S.C. § 9617(c), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.435(c)(2)(ii), if EPA proposes to fundamentally alter the basic features of the selected remedy with respect to scope, performance, or cost, then EPA is required to publish the proposed amendment and provide an opportunity for public comment. In this case, the decision by EPA and WDNR to modify the remedy for this Site fundamentally alters the basic features of the remedy previously selected, and that action necessitates the issuance of this ROD Amendment.

Accordingly, EPA and WDNR issued a Proposed Plan on November 26, 2007, and invited public comment on possible changes to the remedy in the 2002 ROD. After reviewing and fully considering the public comments submitted, EPA and WDNR have decided to modify the selected remedy. The 2002 ROD remedy required predominantly dredging PCB-contaminated sediments. This ROD Amendment employs a combination of the following actions:

- Dredging as the primary remedial approach

and the following alternate remedial approaches:

- capping, and
- sand covers for residuals management and as the sole remedial approach in certain areas.

In accordance with Section 300.825(a)(2) of the NCP, 40 C.F.R. § 300.825(a)(2), this ROD Amendment is part of the administrative record for the Site, available for public inspection at the following three locations, at the following times: 1) WDNR Northeast Region office, 2984 Shawano Avenue, Green Bay, Wisconsin, 7:45 AM – 4:30 PM, Monday-Friday; 2) WDNR Bureau of Watershed Management, 2nd Floor, 101 South Webster Street, Madison, Wisconsin, 7:45 AM – 4:30 PM, Monday-Friday; and 3) EPA Records Center, 7th Floor, 77 West Jackson Boulevard, Chicago, Ill, 8 AM – 4 PM, Monday-Friday. An index of documents contained in the administrative record is attached as Appendix A to this ROD Amendment. Details of this Amended Remedy are described in Section XI below.

VIII. Community Relations

EPA and WDNR issued the Proposed Plan for a ROD Amendment to the public on November 26, 2006. This issuance began a 66 day public comment period on proposed changes to the 2002 ROD. EPA and WDNR held a public meeting on December 13, 2007 to discuss and receive comments on the proposed ROD Amendment at Lawrence University, Appleton, Wisconsin. The comment period ended on January 31, 2008. See Section 3 of the 2002 ROD for the community relations history prior to the December 2002 ROD.

Since the 2002 ROD, the following major public meetings and press conferences have occurred:

- Oct. 2003 -- OU 1 cleanup Consent Decree press conference,
- Aug 2004 -- OU 1 2004 season pre-construction public meeting,
- May 2005 -- OU 3-5 design update public meeting,
- July 2005 -- OU 1 construction update public meeting,
- April 2006 – OU 4 Phase I Consent Decree press conference,
- June 2006 -- OU 1 construction update meeting,
- December 5, 2006 – Public meeting for comments on the Proposed Plan to amend the 2003 ROD, and
- December 13, 2007 – Public meeting for comments on the Proposed Plan to amend the 2002 ROD.

Additionally, since the issuance of the 2002 ROD, the Agencies' staffs have made presentations at or attended approximately 50 meetings or community events to discuss Site cleanup, restoration or regarding other site-related issues, as requested by local officials, citizen groups, universities and other schools, unions, etc. The Agencies also continue to send the Agency Site newsletter, the Fox River *Current*, to 16,000 addresses. Agency and company websites with information for OU 1 also include:

- <http://www.epa.gov/region5/sites/foxriver/index.html>,
- <http://www.dnr.state.wi.us/org/water/wm/foxriver/reportsanddocs.html>, and
- <http://www.littlelakecleanup.com/>.

IX. Development of the Remedial Action Alternatives

The ROD Amendment involves evaluation of two remedial action alternatives: (1) the 2002 ROD Remedy; and (2) the Amended Remedy described in Section XI.

The development of the 2002 ROD Remedy alternative was fully described in the 2002 ROD itself.

The Amended Remedy alternative was developed based on new information and new engineering analyses that were outgrowths of the remedial design and remedial actions from 2004 to 2007 conducted under the 2002 ROD and Consent Decree (03-C-0949), and as summarized in Sections I and VI. The Design Supplement summarized and presented that new information and analyses. The Design Supplement also proposed a remedial design based on the new sediment data and operational dredging experience at OU 1. Details regarding scheduling, monitoring and costs were also evaluated in the Design Supplement. This ROD Amendment modifies the 2002 ROD to allow alternate remedial approaches under the criteria specified in Section XI (Description of the Amended Remedy).

As discussed in greater detail in Section X, the Amended Remedy is designed to have several advantages over the 2002 ROD remedy, including the following:

- Although the Amended Remedy is primarily a dredging remedy, the Amended Remedy also allows alternate remedial approaches in certain situations (such as sand covering or capping undredged areas). This will result in the Amended Remedy being more likely to produce PCB SWAC levels at or less than 0.25 ppm upon completion of active remediation.
- The Amended Remedy is projected to be completed by 2009 rather than 2014 under the 2002 ROD. The active remediation work will be done sooner (2 more years for the Amended Remedy, rather than 7 more years under the 2002 ROD Remedy – following 2007 cleanup activities). In addition, less time will be needed for post-remediation natural recovery in order to achieve the RAOs because the Amended Remedy is expected to yield a lower SWAC than the 2002 ROD Remedy.
- The Amended Remedy allows alternate remedial approaches that are much more efficient than dredging the relatively thin layer of PCB deposits found to be present in OU 1. Under the 2002 ROD Remedy a large volume of relatively clean sediment would need to be removed as the amount of overdredging (about 4-inches) would be significant due to the thin nature of the contaminated sediment deposits (in an average thickness of layers about 1-foot). Once removed, that relatively clean sediment would take up valuable disposal space since it would need to be disposed of in a landfill along with the more contaminated sediment. The Amended Remedy would allow caps or sand covers in some areas with thin layer deposits, if specified criteria can be met. It is estimated that the Amended Remedy would thereby reduce the overdredge volume by 122,000 cubic yards.

X. Evaluation of Alternatives

A. Evaluation Criteria

Remedial alternatives are evaluated based on the nine criteria set forth in the NCP, 40 CFR § 300.430(e)(9)(iii). These criteria are described below.

A remedial alternative is first judged in terms of the threshold criteria of protecting human health and the environment and complying with ARARs (Applicable or Relevant and Appropriate Requirements). If a proposed remedy meets these two threshold criteria, the remedial alternative is then evaluated under the balancing and modifying criteria, to arrive at a final recommended alternative.

Threshold Criteria

1. Overall protection of human health and the environment: Alternatives are assessed to determine whether they adequately protect human health and the environment from unacceptable risks posed by hazardous substances, pollutants, or contaminants present at a site.
2. Compliance with ARARs: Alternatives are assessed to determine whether they attain applicable or relevant and appropriate requirements under federal environmental laws and state environmental or facility siting laws, or provide grounds for invoking a waiver.

Balancing Criteria

3. Long-term effectiveness and permanence: Alternatives are assessed for their ability to maintain protection of human health and the environment over time, and for the reliability of such protection.
4. Reduction of contaminant toxicity, mobility, or volume through treatment: Alternatives are assessed based upon the degree to which they use treatment to address the principal threats posed by a site.
5. Short-term effectiveness: Alternatives are assessed based on the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.
6. Implementability: Alternatives are assessed based on the technical and administrative feasibility of implementing the alternative, such as the relative availability of goods and services.
7. Cost: The cost of each alternative is assessed, including each alternative's capital cost, annual operation and maintenance (O&M) cost, and net present value of capital and O&M cost. Net present value is the total cost of an alternative over time in

terms of today's dollars.

Modifying Criteria

8. State acceptance: The assessment of remedial alternatives includes consideration of concerns the State has raised with respect to the preferred alternative, other alternatives or with ARARs or ARAR waivers.
9. Community acceptance: The assessment of remedial alternatives also includes consideration of the extent to which interested community members support, have reservations about, or oppose certain components of the alternatives.

B. Application of the Evaluation Criteria to the Amended Remedy and the 2002 ROD Remedy

1. Overall Protection of Human Health and the Environment

Compared to the 2002 ROD Remedy, the Amended Remedy is more protective of human health and the environment in the short term, and at least as protective as the 2002 ROD Remedy in the long term.

In the short term, the Amended Remedy has the following advantages over the 2002 ROD remedy:

- The Amended Remedy is projected to achieve a lower PCB SWAC in OU 1 sediment than an all dredging remedy and thus reduce contaminant exposure sooner. The Amended Remedy will leave lower PCB surface concentrations in capped and sand cover areas, as compared to the higher expected levels that would remain at the surface if the same areas were dredged. The Amended Remedy also provides additional options for meeting the SWAC (e.g., placement of sand covers over undredged areas). Table 3 presents the estimated pre-remediation SWAC and the estimated SWAC results under the two remedial approaches, assuming a post-dredging sand cover for both remedies.

TABLE 3. Estimated Current PCB SWAC and Projected SWAC Results for OU 1 for an All-Dredging Remedy and Amended Remedy⁶

Pre-Remediation (ppm)	After all-dredging remedy (ppm)	After Amended Remedy (ppm)
1.9	0.48	0.25

- The Amended Remedy will also achieve RAOs years before they would be achieved under the 2002 ROD Remedy. The active remediation work will be done sooner (within 2 more years under the Amended Remedy, rather than

⁶ From the Concept Paper, page 10.

taking 7 more years under the 2002 ROD Remedy). In addition, less time will be needed for post-remediation natural recovery in order to achieve the RAOs because the Amended Remedy is expected to yield lower SWAC than the 2002 ROD remedy. That lower post-construction SWAC would yield lower PCB concentrations in fish tissue sooner.

The Amended Remedy and the 2002 ROD Remedy would offer comparable protection over the long term. Both alternatives use the same RAL. Although a lower volume of contaminated sediment would be dredged under the Amended Remedy, 97% of all PCBs in OU 1 would still be removed, contained by a cap or sand cover.⁷ The engineered caps that are allowed by the Amended Remedy are designed to remain protective over the long term, as the Amended Remedy includes stringent design criteria for caps and ongoing cap monitoring and maintenance requirements. If long term monitoring shows that a cap is deteriorating or damaged, EPA and WDNR could require that the cap be enhanced or removed (along with removal of the underlying sediment).

2. Compliance with ARARs

Both the 2002 ROD Remedy and the Amended Remedy will meet all ARARs. This is discussed in detail in Section XIV.2.

TSCA requirements are significant ARARs for sediment with PCB concentrations at or above 50 ppm PCBs (TSCA sediment). However, at OU 1 all TSCA sediments (with PCB concentrations equal to or greater than 50 ppm) were removed during dredging activities from 2004-2006. If additional TSCA sediments are discovered in subsequent sampling or remedial activities, TSCA sediment will be dredged from the River and that dredged material will be handled, stored, and disposed or capped in accordance with TSCA requirements.

3. Long-term Effectiveness and Permanence

Both the 2002 ROD Remedy and the Amended Remedy meet the long-term protectiveness and permanence requirements of the NCP. As discussed above, the Amended Remedy's design criteria for engineered caps require that the caps are designed to be durable and effective over the long term. Those design criteria were developed based on detailed evaluations of the following processes or events that could potentially compromise the integrity and protectiveness of a cap:

- **Scour from hydrodynamic flows.** The caps are designed to remain stable under maximum shear stresses for reasonable worst case scenarios (e.g., 100-year storm event). Experts in the fields of environmental engineering, hydrodynamic flow modeling, and sediment remediation have determined an

⁷ 100% of PCBs are not addressed because some limited areas are inaccessible due to utilities or shoreline issues.

appropriately conservative design, reflected in the Amended Remedy.

- **Disruption from bioturbation (i.e., biological activity).** The caps are designed with thicknesses that will resist cap damage or exposure of underlying contamination due to bioturbation. Data from other similar Great Lakes sediment sites indicates that the potential bioturbation depth is approximately 4 inches. This is incorporated into the cap design.
- **Ice scour.** An independent expert evaluation of potential ice scour was conducted using available historic climate data, site visits, and interviews with local individuals who have significant experience on the Lower Fox River. Among other things, the evaluation considered the risk of frazil ice negatively impacting the capped areas (i.e., ice on the river bottom that occurs in super-cooled areas of the River with turbulent water). Areas in OU 1 with potential frazil ice formation were determined to be outside the areas that would be capped. Thus, the evaluation did not identify any areas where frazil ice or other ice forms (e.g., ice dams or jams) would be expected to cause erosion or damage to caps either directly from ice or indirectly from increased water velocities under the ice.
- **Scour from propeller wash.** The cap design criteria include minimum depth requirements (i.e., 6-foot water depth for post capped areas) and cap design requirements (such as an armor stone layer) to ensure that caps are resistant to propeller wash from recreational or commercial vessels. Those requirements were developed based on analyses of existing and possible future vessel types and river uses for OU 1, including physical tests and modeling.
- **Other technical considerations.** The caps are designed for stability, by requiring that a cap can only be installed if the underlying sediment has sufficient load bearing capacity and if the capped area will have stable side slopes.

The Amended Remedy also includes long-term monitoring and maintenance and Institutional Control requirements for caps as described in detail in Section XI.D.

Both the 2002 ROD Remedy and the Amended Remedy require long-term monitoring of surface water and biota and Institutional Controls (e.g., fish consumption advisories) until remedial objectives are met.

4. Reduction of Toxicity, Mobility or Volume through Treatment

Both the 2002 ROD Remedy and the Amended Remedy reduce contaminant mobility by either containment (under caps or sand covers) or removal and containment (by dredging and off-Site landfill disposal). Contaminated sediment would not receive further treatment under either the 2002 ROD or the Amended Remedy. Dredging

carrier water will be treated to meet State standards to remove PCBs or other contaminants, and recycled/discharged back into the Lower Fox River. Contaminated sediments removed from the Lower Fox River will be dewatered, transported, and landfilled.

5. Short-Term Effectiveness

As discussed above, in the short term, the Amended Remedy would be more effective than the 2002 ROD Remedy. The Amended Remedy would be done sooner, it would achieve a lower SWAC upon remedy completion, and it would achieve RAOs sooner.

Past experience at this Site has shown that minor amounts of contaminated sediment may be re-suspended and released during dredging. Those short-term impacts during remedy implementation would end sooner under the Amended Remedy because that remedy could be completed sooner (2 more years for the Amended Remedy versus 7 more years for the 2002 ROD Remedy to complete remediation after 2007 remediation).

6. Implementability

As discussed in Section VI.C.4 above, operational experience at OU 1 during dredging operations from 2004-2007 has demonstrated that sediment removal, transportation, dewatering and disposal methods envisioned by the 2002 ROD and the Amended Remedy are implementable. Additionally cap placement tests conducted during 2007 demonstrated that cap materials could be reliably and effectively placed, consistent with design standards discussed in the Design Supplement.

Services, materials and equipment would be locally available for both the 2002 ROD Remedy and the Amended Remedy (described in Section XI below). For example, materials required for capping (i.e., sand and armor stone) under the Amended Remedy are readily available in the area.

7. Cost

Table 4 below summarizes the most recent cost estimates for the 2002 ROD Remedy and the Amended Remedy, as presented in the Design Supplement. The original cost estimate for the 2002 ROD Remedy was \$66 million. The most recent cost estimate for the 2002 ROD Remedy is \$144 million, an increase of \$78 million compared to the estimate in the 2002 ROD. That cost estimate increased for several reasons, but the most significant factor was the increased estimate of the volume that would need to be dredged and disposed, based on new sampling and recent estimates of overdredge requirements. Sampling and analysis of PCB contaminated sediments in 2003-2004 and 2006-2007 identified numerous thin layer PCB deposits in OU 1. Under the 2002 ROD Remedy, a significant volume of relatively clean sediment would need to be removed as overdredge allowance for dredging thin layer deposits. Once removed, that relatively clean sediment must be disposed of in a landfill along with the more contaminated sediment.

The estimated cost for the Amended Remedy is approximately \$102 million. The Amended Remedy allows alternate remedial approaches that are much more efficient than dredging thin layer PCB deposits. The Amended Remedy would allow caps or sand covers in some areas with thin layer deposits, if specified criteria can be met (discussed detail in Section XI.A.2 below). It is estimated that the Amended Remedy would thereby reduce the overdredge volume by 122,000 cubic yards.

The cost estimates for both alternatives include preliminary estimates of operation and maintenance costs, including estimated costs of cap maintenance under the Amended Remedy. Refined estimates of operation and maintenance costs for the Amended Remedy will be developed during the remedial design process. The cost estimates do not include institutional control costs, although those costs are not expected to be significant compared to other cost components.

Because the Amended Remedy would cost an estimated approximately \$42 million less than the 2002 ROD Remedy, and the Amended Remedy will achieve comparable or better results, it is more cost effective than the 2002 ROD Remedy.

TABLE 4. Comparative Costs of the 2002 ROD Remedy and Amended Remedy.

Item		2002 ROD	Amended Remedy
2004-2007 Dredging/dewatering/water treatment and disposal		\$ 67,000,000	\$ 67,000,000 ¹
Post-2007	Dredging/dewatering/water treatment and disposal	\$ 56,250,000 ²	\$ 6,450,000 ²
	Capping	0	\$ 9,650,000
	Sand Cover	\$ 17,150,000 ²	\$ 8,700,000 ²
	Demobilization	\$ 1,750,000 ²	\$ 1,750,000 ²
	Monitoring and Maintenance	\$ 2,000,000	\$ 4,650,000
	Contingency	0 ³	\$ 4,050,000
	TOTAL	\$ 144,150,000	\$102,250,000

Table Notes:

Costs are from the Design Supplement, Sections 7.2.2 and 7.3, pages 50 and 51, respectively.

¹ Although these costs were for cleanup actions completed consistent with the 2002 ROD, they are listed here to allow comparison of overall cleanup costs.

² Averages are used for the estimated cost ranges.

³ No contingency is used for the 2002 ROD costs because experience at OU 1 gives a high confidence based on actual operating expenses from dredging completed during 2004 to 2007 (with 335,000 cy of sediments dredged).

8. State Acceptance

WDNR agrees with the Amended Remedy and is co-signing this Record of Decision Amendment.

9. Community Acceptance

Community acceptance considers whether the local community supports or opposes particular alternatives. Comments on the Proposed Plan are an important indicator of community acceptance.

The Responsiveness Summary that is attached as Appendix A to this ROD Amendment summarizes and addresses 44 comments on the Proposed Plan. The majority of the public comments supported a remedial action addressing the PCB contamination at the Site. A number of comments expressed support for the Proposed Plan because it would achieve remedial goals sooner, and would be more cost effective, as compared to the 2002 ROD Remedy. Some comments expressed concerns regarding the permanence of caps (i.e., long-term stability and effectiveness), as well as concerns about long-term maintenance of caps. As noted above, the Amended Remedy includes several features that are designed to address those concerns, including stringent design and criteria for caps and long-term cap monitoring and maintenance requirements. None of the comments provided specific technical reasons or justifications for certain assertions that the Amended Remedy would not be effective or protective.

Results of Evaluation Using the Nine Criteria

Both the 2002 ROD Remedy and the Amended Remedy meet the threshold criteria described above. Both would provide for protection of human health and the environment; and meet state and federal ARARs.

The Amended Remedy has distinct advantages under the balancing criteria described above. It would be more effective than the 2002 ROD Remedy in achieving risk-reduction SWAC goals, and would be more cost-effective. Recent analyses also suggest that the 2002 ROD Remedy would be more difficult and take longer to implement.

The two alternatives have also been evaluated under the modifying criteria described above. WDNR supports adoption of the Amended Remedy and is co-signing this Record of Decision Amendment. In response to community input, certain requirements of the Amended Remedy have been clarified and strengthened.

Applying the nine remedy selection criteria, and fully considering comments from the public, EPA and WDNR have decided to change the remedy for the Site by amending the 2002 ROD, as described below.

XI. Description of the Amended Remedy

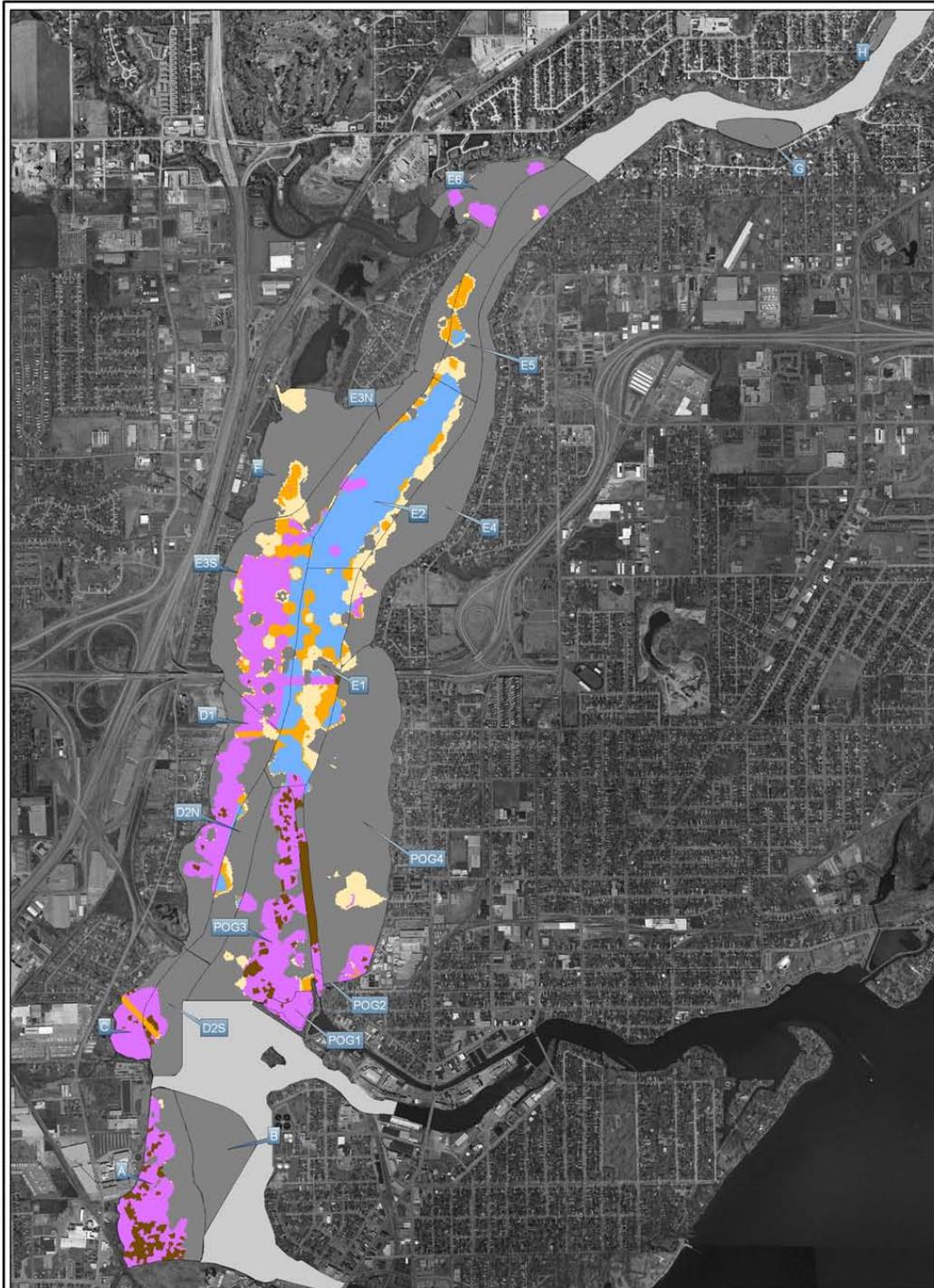
The Amended Remedy addresses all areas of OU 1 containing sediment with PCB concentrations greater than the 1.0 ppm RAL. The Amended Remedy adopts removal of contaminated sediments with dredging as the primary remedial approach for sediment exceeding the 1.0 ppm PCB RAL, but it allows alternative remedial approaches to be used instead of dredging (i.e., capping and placement of a sand cover) under the eligibility criteria specified below. The short-term and long-term objectives of the Amended Remedy include: removing and containing PCB-contaminated sediment in OU 1 to meet the RAL and/or OU-specific SWAC goals upon construction completion; achieving further reductions in PCB surface concentrations through natural recovery processes; achieving corresponding reductions in PCB levels in the water column and in fish tissue; and ensuring continuation of those benefits to human health and the environment through long-term operation and maintenance and application of institutional controls.

Although the Amended Remedy adopts sediment removal as the primary remedial approach for sediment with PCBs greater than the 1.0 ppm RAL, additional remedial measures will be necessary to meet the SWAC goals in many areas where dredging occurs. The Amended Remedy remains consistent with the 2002 Remedy as sediment removal is still the primary remediation approach at this Site. However the additional remedial measures selected here will fully achieve the original cleanup requirements in a shorter period of time.

As explained above, prior experience with dredging work at this Site and at other locations has shown that, during the dredging process, a small amount of sediment invariably becomes re-suspended and resettles in a thin layer of generated residuals at the surface of the newly-dredged area. The generated residuals could have unacceptably high levels of PCBs, and may continue to pose a risk unless the primary approach is modified. The Amended Remedy, therefore, includes post-removal survey and sampling requirements, and post-removal residuals management requirements, as outlined below.

The Amended Remedy allows alternate remedial approaches such as capping in certain areas at the Site where those alternate approaches can help achieve the overall remedial objectives more quickly, more effectively, and at a lower cost. However, unlike sediment removal, a containment approach such as capping would leave contaminated sediment in place in some areas at the Site, so the Amended Remedy includes two main features that are designed to ensure that capping would be as protective as sediment removal over the long term. First, the cap design and minimum depth requirements specified below are designed such that the caps will be durable over the long term, even with factors such as major flood events, ice scour, and propeller wash. Second, the Amended Remedy includes specific requirements for monitoring and maintaining caps that are installed, to confirm that the long-term objectives of the Amended Remedy are achieved.

The ROD Amendment establishes general criteria governing use of the primary remedial approach and the alternate remedial approaches in areas within OU 1, but more specific plans will be developed during the remedial design process. A conceptual design for dredging, capping, and sand covering areas is shown in Figures 2 and 3 below, and summarized in Table 5. As discussed in greater detail in the Design Supplement, that design would involve removing an estimated total of 406,100 cubic yards of sediment with PCB concentrations greater than 1.0 ppm by dredging, and containing 503,900 cubic yards by capping or a sand cover. The final remedial action design and implementation details will be subject to approval by EPA and WDNR, and the Agencies will require the remedial action to be consistent with all criteria and requirements of the Amended Remedy, as outlined below.



Legend
 Sub-area/DMU Boundaries

- OU1 Optimized Remedy**
- Engineered Cap
 - Dredge Areas
 - Interdeposit (less than 1.0 ppm PCBs)
 - Null
 - 3 Inch Sand Cover
 - 6 Inch Sand Cover
 - Residual Sand Cover

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.

Source: Orthophoto flown by Winnebago County



GW PARTNERS

FIGURE 2
 AMENDED REMEDY
 MOSAIC OF REMEDIAL ACTION
 OPERABLE UNIT 1

Scale: 0 800 1,600 Feet

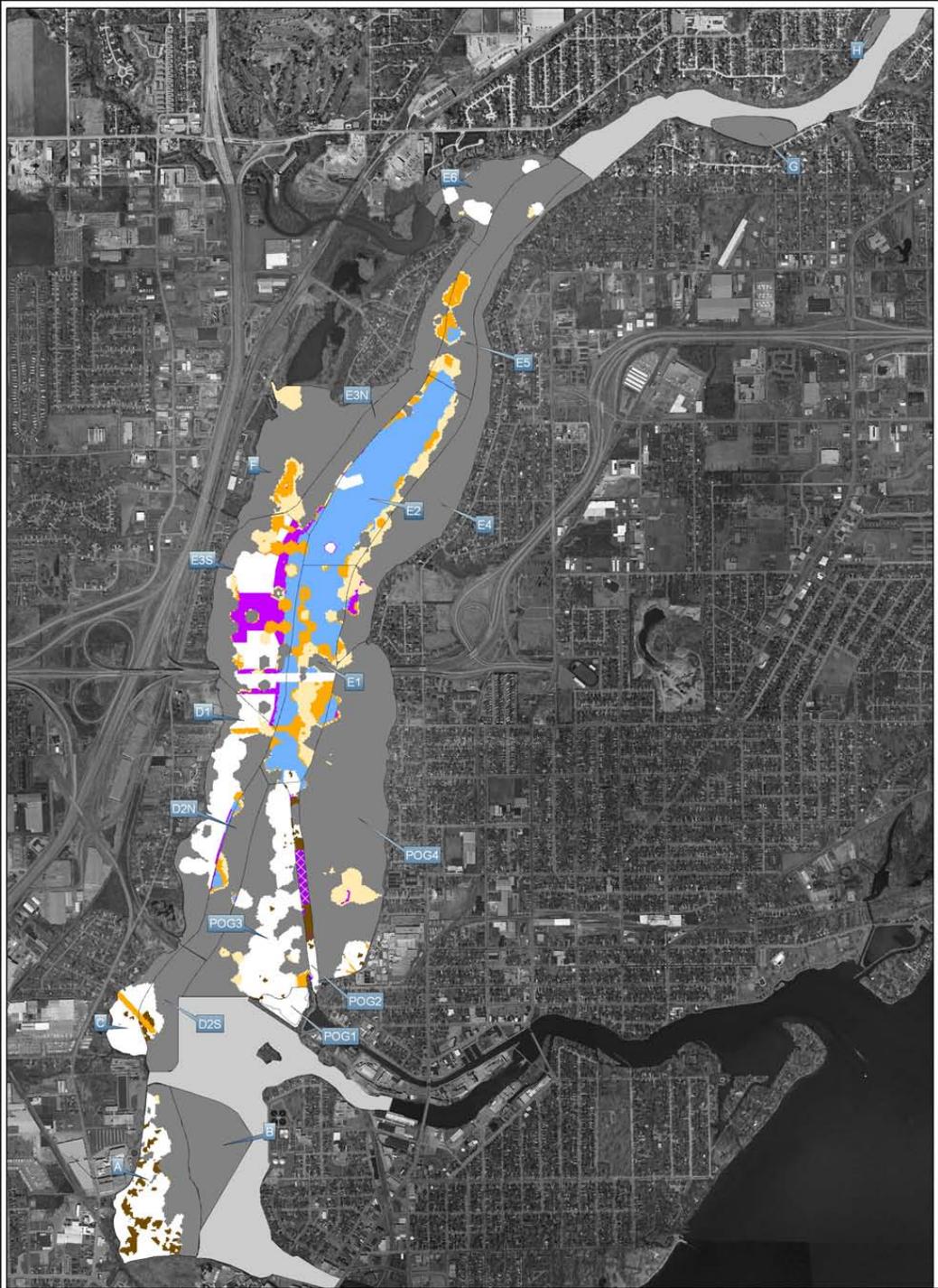
Date: NOVEMBER 2007

Drawn By: SGL

Checked By: SJL1

Scope: 07G017

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- Legend**
- Sub-area/DMU Boundaries
 - OU1 Optimized Remedy**
 - Engineered Cap
 - Dredge Areas
 - Dredge and 9" Sand Cover
 - Interdeposit (less than 1.0 ppm PCBs)
 - Null
 - 3 Inch Sand Cover
 - 6 Inch Sand Cover
 - Residual Sand Cover

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.

Source: Orthophoto flown by Winnebago County



GW PARTNERS FIGURE 3 AMENDED REMEDY MOSAIC OF REMEDIAL ACTION POST 2007 PROJECT WORK OPERABLE UNIT 1		
Scale: 0 800 1,600 Feet	Date: NOVEMBER 2007	
Drawn By: SGL	Checked By: SJL1	Scope: 07G017

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A. The Primary Remedial Approach and the Alternate Remedial Approaches

1. The Primary Remedial Approach

The Amended Remedy adopts sediment removal (discussed below) as the primary remedial approach for sediment exceeding the 1.0 ppm PCB RAL. The primary remedial approach must be used to remediate such sediment unless the eligibility criteria for employing an alternate remedial approach in the specific area can be met and the alternate remedial approach is more feasible and more cost effective in that area.

Any final remedial action must incorporate the following minimum standards:

- **Sediment removal requirements.** All sediment with PCB concentrations exceeding the 1.0 ppm RAL will be targeted for removal in all areas within OU 1 unless use of an alternate remedial approach is approved by the Agencies for a particular area under the eligibility criteria listed below in Section XI.A.2. More specifically, in each sediment removal area, sediment shall be removed to a target elevation that: (1) encompasses all contaminated sediment exceeding the 1.0 ppm PCB RAL (as determined from 2003-2004, 2006-2007 and 2008 sampling data and data interpolation), including an overdredge allowance, as appropriate; and (2) includes any remaining sediments with PCB concentrations greater or equal to 50 ppm.
- **Sediment removal methods and precautions.** Sediment removal will be conducted using a dredge appropriate to Site conditions. In-water pipelines or other appropriate methods will transport the dredged sediment from the dredge to the staging area(s). Dredging experience at OU 1 from 2004 – 2007 has shown that with careful operation of environmental dredges, silt curtains or other containment devices generally are not necessary during dredging activities. However, if future operations indicate that controls are necessary to ensure protectiveness, then additional measures or modifications to the dredging process will be employed, as appropriate. Turbidity will be monitored during dredging operations. Buoys and other waterway markers will be installed around the perimeter of the in-water work area.
- **Sediment dewatering and disposal.** Dewatering will be employed at the staging facility for dredged sediment. The dewatering will be accomplished using processes such as plate and frame presses, belt filter presses, or geotextile tubes to remove water from PCB contaminated sediment before disposal. Based on dredging and dewatering from 2004 – 2007, it is expected that geotextile tubes will likely be used to complete the dewatering of dredged sediments for the remainder of the project. Dewatered contaminated sediment will be transported by truck, rail, and/or barge to a dedicated engineered landfill or another suitable upland disposal facility, consistent with applicable federal and state requirements. Based on previous

experience at OU 1, it is anticipated that trucks would be utilized to transport dredged PCB-contaminated sediments to an approved upland disposal facility. All known TSCA sediments were removed during dredging operations from 2004 to 2006. Although only non-TSCA sediments are expected to remain at OU 1, if TSCA sediments were found to still remain at OU 1, dewatered sediments subject to TSCA disposal requirements must be transported consistent with TSCA requirements by truck, rail, and/or barge to a landfill facility appropriately permitted to receive TSCA waste.

- **Water treatment.** Superfund cleanups are required to meet the substantive discharge requirements of the Clean Water Act, but National Pollutant Discharge Elimination System (NPDES) permits are not required for on-site work. Thus, water generated by dredging and dewatering operations will be treated prior to discharge back to the River and will meet all state and federal water quality standards. This may include (but not be limited to) bag filter and sand filtration and granulated activated carbon (GAC) treatment. Treated water will be sampled and analyzed to verify compliance with the appropriate discharge requirements according to plans that will be developed in the design phase and approved by the Agencies.
- **Post-removal confirmatory surveys and sampling.** After removal of sediments from a particular area, a survey and sampling activities will be performed to: (1) determine whether the sediment removal requirements specified above were met; and/or (2) determine whether there is a need for post-removal residuals management measures, as specified below. If the survey and/or sampling results show that the sediment removal requirements were not met in an area, then additional sediment in the area shall be removed until compliance with the sediment removal requirements is achieved. If the survey and/or sampling results in a particular area shows that post-removal dredge residuals management measures are needed, then those measures shall be implemented. The post-removal surveys and sampling will be done when the initial round of dredging in a particular area is completed.
- **Post-removal residuals management.** As explained above, this ROD Amendment uses the term “generated residuals” for sediment that is re-suspended and re-deposited on the surface of a newly-dredged area (i.e., within the top six inches of the sediment), and it uses the term “undisturbed residuals” for sediment that is more than six inches below the surface of the newly-dredged sediment. If post-removal confirmatory sampling in a sediment removal area reveals post-removal generated residuals or undisturbed residuals with PCB concentrations exceeding the 1.0 ppm PCB RAL, then one or more of the following must occur:

- **For management of generated residuals**
 - Generated residuals with a PCB concentration equal to or greater than 5.0 ppm must either be: (1) removed (typically by re-dredging) in accordance with the sediment removal requirements specified above; or (2) capped, if the eligibility criteria for that alternate remedial approach can be met, as specified below.
 - Generated residuals with a PCB concentration between 1.0 ppm and 5.0 ppm must be covered with at least 6 inches of clean sand from an off-Site source (referred to as a “residual sand cover”).
 - Place a residual sand cover as necessary to meet the SWAC goal for the OU of 0.25 ppm.

- **For management of undisturbed residuals**
 - Unless EPA and WDNR approve use of a different residuals management approach in a particular area within OU 1, undisturbed residuals with a PCB concentration exceeding the 1.0 ppm PCB RAL must be removed (typically by re-dredging) in accordance with the sediment removal requirements specified above. EPA and WDNR may evaluate and approve the use of a different residuals management approach (such as a cap or a sand cover) for undisturbed residuals in limited areas if the eligibility criteria for alternate remedial approaches in Section XI.A.2 below is met.

2. Alternate Remedial Approaches

As noted above, the primary remedial approach shall be used to remediate sediment with a PCB concentration exceeding the 1.0 ppm PCB RAL, unless the eligibility criteria for employing an alternate remedial approach in the specific area can be met and the alternate remedial approach is more feasible and more cost-effective in that area. The Agencies have already determined that alternate remedial approaches will be more feasible and more cost-effective than dredging in certain areas identified in the Design Supplement, but the Design Supplement did not make final recommendations for all areas. Capping will only be allowed where the average PCB concentrations do not exceed 10.0 ppm in the top 8-inch interval of sediment underlying the cap.

The Design Supplement included alternate remedial approaches in some areas, but more specific plans for any alternate remedial approaches in OU 1 will be developed

before or during completion of the remedial action. Any final remedial action must incorporate the following minimum standards:

- **Engineered caps.** An engineered cap consisting of a sand layer and an armor stone layer may be installed in an area if the following eligibility criteria are satisfied:
 - **Minimum water depth criteria for capping.**
 - Capping will not be allowed in areas within the federally-authorized navigation channels. (Note: Sand covering will be allowed in the navigation channel(s) to manage dredged residuals. These sand covers must be at least 6 inches thick and must not impede navigation.)
 - Capping will be allowed in areas outside of the federally authorized navigation channel only if the top of the cap is at least 6 feet below the low water datum.
 - **Engineered caps of 13 inches in thickness.** This type of cap may be used in areas outside of the federally authorized navigational channel if the minimum water depth criteria for capping and all of the following additional criteria are met:
 - The cap shall be constructed of at least 3 inches of clean sand covered by at least 4 inches of armor stone, with an overplacement allowance of 3 inches of sand and 3 inches of armor stone.
 - The PCB concentration in the sediment in the eight inches immediately beneath the cap⁸ shall not exceed an average of 10.0 ppm.
 - **Initial post-construction cap monitoring.** Immediately after completion of capping construction activities for both sand and then separately for armor layers, a hydrographic survey shall be performed and direct cap thickness verification sampling shall be conducted. The post-construction thickness sampling will verify that cap placement specifications and cap construction criteria have been met, including an evaluation of whether the installed cap is sufficient in aerial coverage and thickness, and whether the cap material meets all applicable physical and chemical design standards. If the initial post-construction cap monitoring in a particular area shows that the cap

⁸ This eight inches is comprised of two 4-inch sampling intervals.

placement specifications and cap construction criteria have not been met, then the cap in that area shall be augmented or replaced to meet the applicable specifications and criteria.

○ **Sand covers in undredged areas.**

- A cover composed of at least an average of 6 inches (3-inch minimum thickness) of uncontaminated sand from an off-Site source may be placed over certain undredged areas that have low PCB concentrations in a relatively thin layer of PCB-contaminated sediment exceeding the 1.0 ppm PCB RAL if both of the following criteria are met:
 - The sediment beneath the sand cover must not exceed 2.0 ppm at any depth within the sediment profile.
 - The sediment profile shall contain only one 8-inch interval with PCB concentrations between 1.4 – 2.0 ppm.
- A cover composed of at least an average of 3 inches (1.5-inch minimum) of uncontaminated sand from an off-Site source may be placed over certain undredged areas that have low PCB concentrations in a relatively thin layer of PCB-contaminated sediment exceeding the 1.0 ppm PCB RAL if both of the following criteria are met:
 - The sediment beneath the sand cover must not exceed 1.4 ppm at any depth within the sediment profile.
 - The sediment profile shall contain only one 8-inch interval with PCB concentrations between 1.0 – 1.4 ppm.

Immediately after completion of sand cover placement activities, sand cover cores shall be collected. These initial post-construction cores or other measures approved by the agencies will verify that sand cover placement specifications have been met, including an evaluation of whether the sand cover is sufficient in areal coverage and thickness. If the initial post-construction sand cover monitoring in a particular area shows that the sand cover placement specifications have not been met, then the sand cover in that area shall be augmented or replaced to meet the applicable specifications and criteria.

- **Exceptional areas.** EPA and WNDR may approve use of modified remedial approaches or other remedial approaches in exceptional areas at the Site based upon a showing that use of another remedial approach in an exceptional area is sufficiently protective and is more feasible and more cost effective than the primary remedial approach or any of the alternate remedial

approaches described above. EPA and WDNR expect that there will only be a relatively small number of areas at the Site that will need to be treated as exceptional areas, including some shallower near shore areas or areas near utilities. The specific remedial approach for each exceptional area will be subject to review and approval by EPA and WDNR, and will be included in the final remedial design.

A summary of a preliminary design features for capped areas and sand cover areas is shown in Table 5 below.

TABLE 5. Summary of Design Features for Capping and Sand Covers

Description		Minimum post-cap/cover water depth	PCB concentration	Area covered by cap or sand cover
Cap: 6-inches of sand and 7-inches of gravel		6 feet	≤ 10 ppm ¹	112 acres
Sand Cover	6-inches of sand	Varies	1.4 - 2.0 ppm ²	46 acres
	3-inches of sand	Varies	1.0 – 1.4 ppm ²	68
	6-inches of sand	Varies	Dredge residuals	30

Table Notes:

¹ PCB average concentration in 0 – 0.5 foot depth below mudline.

² Maximum PCB concentration in any 8-inch interval. Sand cover is assumed to completely mix with the top three (3) inches of underlying sediment and will achieve the 1.0 ppm RAL in the 0 – 0.5 foot depth below mudline.

B. The Relationship Between the Remedial Action Level (RAL) Performance Standard and the Surface-Weighted Average Concentration (SWAC) Goal

This ROD Amendment requires remediation of all contaminated sediment exceeding the 1.0 ppm PCB Remedial Action Level (RAL) either by the primary remedial approach or by one of the alternate remedial approaches discussed above. The ROD Amendment also establishes two standards that will be used to judge the completion of construction of the Amended Remedy for OU 1: a RAL Performance Standard and a SWAC goal. As explained below, construction of the remedy will be deemed complete for OU 1 if the RAL Performance Standard has been met throughout the OU. If the RAL Performance Standard has not been met after employing the primary remedial approach and/or the alternate remedial approaches throughout the OU, then the remedy will be deemed complete if the SWAC, as determined by WDNR and EPA, meets the SWAC goal for the OU. The construction of the remedy will not be deemed complete based on the SWAC goal unless and until all sediment exceeding the RAL has been remediated using the primary remedial approach and/or the alternate remedial approaches.

As discussed in the 2002 ROD, EPA and WDNR selected the 1.0 ppm PCB RAL because it would achieve cost-effective removal and/or containment of PCBs, and substantially reduce migration of PCBs downstream. The Amended Remedy adopts that same RAL, and it incorporates a presumption in favor of remediation by sediment removal, but it also allows remediation of sediment above the RAL by alternate remedial approaches. The mass and volume of contaminated sediment to be removed under the primary remedial approach will depend upon the horizontal footprint and depth of the contamination exceeding the 1.0 ppm PCB RAL. The use of alternate remedial approaches for remediation of sediment exceeding the 1.0 ppm PCB RAL will depend upon the depth and level of contamination of the sediment and location-specific design requirements and eligibility criteria, as detailed above.

If all sediment exceeding the 1.0 ppm PCB RAL within OU 1 is removed and/or contained using the primary remedial approach and/or the alternate remedial approaches, then construction of the remedy in OU 1 will be deemed complete based on achievement of the RAL Performance Standard. Achievement of the RAL Performance Standard will be assessed soon after completion of sediment removal, capping, and sand cover placement activities. As discussed below, even if the RAL Performance Standard is not met, construction of the remedy in OU 1 can still be deemed complete based on the Agencies' determination that the SWAC goal has been achieved.

As explained in the 2002 ROD, a SWAC at or near 0.25 ppm is expected to reduce PCB levels in sport fish to acceptable levels within a reasonable time period after completion of active remediation (e.g., for walleye, it would take an estimated 9 years for recreational fishers and 14 years for high-intake fish consumers). The Amended Remedy therefore requires achievement of an OU-specific SWAC goal if the RAL Performance Standard has not been met after employing the primary remedial approach and/or the alternate remedial approach throughout OU 1 (e.g., if post-removal residuals exceeding the 1.0 ppm PCB RAL remain in an area after it has been dredged to the required target elevation). Under the Amended Remedy, the PCB SWAC goal for OU 1 is 0.25 ppm PCBs. If the SWAC calculation, as determined by the EPA and WDNR, is met within OU 1 after all sediment exceeding the 1.0 ppm PCB RAL has been remediated using the primary remedial approach and/or the alternate remedial approaches, then the

Explanation of Remedial Action Level and Surface-Weighted Average Concentration

The term Remedial Action Level (RAL) refers to a PCB concentration in sediment used to define an area or volume of contaminated sediment that is targeted for remediation. In other words, the RAL in this ROD calls for remediation by dredging, or application of capping or a sand cover, of all sediment in OU 1 having a PCB concentration of greater than 1.0 ppm. If all sediment with a concentration greater than the 1.0 ppm RAL is addressed by dredging, capping and sand covers, it is predicted that the residual Surface-Weighted Average Concentration (SWAC) of sediment will be approximately 0.25 ppm. The SWAC goal in this instance is less than the RAL performance standard because a SWAC is calculated as an average concentration over the entire Operable Unit, after dredging, capping or placement of a sand cover in discrete areas that are above the RAL, and includes averaging over areas in which there are surface concentrations less than the RAL. SWAC calculations are discussed in Section 5.2 of the 2002 Feasibility Study.

construction of the remedial action can be deemed complete based on the Agencies' determination that the SWAC goal has been achieved.

The Amended Remedy offers a range of options for completing construction of the remedy if all contaminated sediment exceeding the 1.0 ppm PCB RAL has been remediated in OU 1 using the primary remedial approach and/or the alternate remedial approaches, but it still appears that the RAL Performance Standard or achievement of the SWAC goal will not be met. Those options are:

1. Performing additional dredging or capping to ensure that all sediments with PCB concentrations greater than the 1.0 ppm PCB RAL are removed, contained or covered;
2. Installing capping in areas with higher PCB concentrations (provided minimum water depth criteria and other capping criteria and design requirements are met);
3. Placing a residual sand cover over dredged areas; and
4. Placing a sand cover over undredged areas (consistent with the general requirements for sand covers outlined above).

Once the Agencies have determined that the RAL Performance Standard or the SWAC goal is achieved in OU 1, the construction of the OU 1 remedy will be deemed complete (although ongoing monitoring and maintenance requirements and contingencies that are part of the Amended Remedy will continue to apply).

C. Other Features of the Amended Remedy

The Amended Remedy includes the following additional elements:

- **Site mobilization and preparation.** Staging area(s) will be required for facilities associated with sediment dewatering, sediment handling, water treatment, and material handling for cap and cover operations. Specific staging areas will likely be facilities previously utilized for the OU 1 project from 2004 to 2007. Docking facilities for dredging equipment and ancillary equipment for capping or sand covers at the existing facility will also likely be utilized.
- **Demobilization and staging area(s) restoration.** Demobilization, staging area(s) restoration, and decontamination of all equipment will require removing all equipment from the staging and work areas and restoring the staging area(s) as needed to meet the legal requirements or any agreement with the property owner.

- **Natural recovery after remediation.** Although the RAL Performance Standard or the SWAC goal will need to be met before construction of the remedial action can be deemed complete in OU 1, it will take additional time for natural recovery before some of the remedial action objectives are achieved. Sediment Quality Thresholds vary depending on the sensitivity of the particular receptor (such as recreational anglers, high-intake fish consumers walleye, mink, etc.), but post-remediation natural recovery will need to occur before certain SQTs and other remedial action objectives can be achieved. This is unchanged from the 2002 ROD, because the 2002 ROD and the Amended Remedy selected the same RAL and comparable SWACs.
- **Long-term monitoring, cap maintenance, and institutional controls.** These requirements are discussed below in Section XI.D
- **Monitored Natural Recovery and Institutional Controls.** This ROD Amendment does not change the original remedy for OU 2 in the 2002 ROD (i.e., Monitored Natural Recovery and Institutional Controls other than in Deposit DD).
- **Estimated costs.** Costs for the Amended Remedy are estimated to be approximately \$102 million and are presented in detail in Table 4 above.

D. Long Term Monitoring, Cap Maintenance, and Institutional Controls

- **Long-term monitoring of surface water and biota.** The Amended Remedy requires long-term monitoring of surface water and biota to assess progress in achieving the remedial action objectives. Monitoring will continue until acceptable levels of PCBs are reached in surface water and fish. A detailed Long-Term Monitoring Plan, specifying the types and frequency of monitoring, will be developed.
- **Long-term cap monitoring.** The Amended Remedy requires long-term monitoring of any engineered caps that are installed at the Site to confirm their long-term integrity and protectiveness. The long-term monitoring will include:
 - **Hydrographic surveys and core sampling.** A hydrographic survey shall be performed and cores of the cap shall be collected, at a minimum, 2 years and 4 years after the initial post-construction survey and every 5 years thereafter. Based on the results observed in that periodic monitoring, EPA and WDNR may increase or decrease the frequency of periodic monitoring. EPA and WDNR may require additional cap monitoring (between periodic monitoring events) after particular events that could cause cap damage, such as major storm events, ice scour events, or propeller wash scour events.

- **Monitoring for physical integrity.** Hydrographic survey results and core samples collected during cap monitoring events will be analyzed to determine cap thickness and integrity.
 - **Monitoring for chemical containment.** Some core samples collected during cap monitoring events will also be analyzed for PCB contamination within 6 inch intervals (or less) to determine whether contamination is being effectively contained and isolated from the biota.

- **Cap enhancement and/or removal in response to cap degradation.** If monitoring, or other information, indicates that the cap in an area no longer meets its original as-built design criteria and that degradation of the cap in the area may result in an actual or threatened release of PCBs at or from the area, then EPA and WDNR shall identify additional response activities to be undertaken in the area. If monitoring or other information shows a pattern of cap degradation in multiple areas, then EPA and WDNR may identify additional response activities to be undertaken in multiple capped areas at the Site (including in areas that have not yet shown any signs of degradation). The additional response activities shall include either:
 - Cap enhancement (e.g., application of a thicker sand layer or stone layer or use of larger armor stone); and/or
 - Cap removal and removal of underlying contaminated sediment (consistent with the requirements of the primary remedial approach).

- **Cap enhancement and/or removal in response to changed water levels.** EPA and WDNR may identify additional response activities to be undertaken in a capped area if monitoring or other information indicates that the minimum water depth criteria for capping are no longer being met in the area and that the failure to meet the water depth criteria: (1) may result in an actual or threatened release of PCBs at or from the area (e.g., due to an increased risk of damage caused by propeller wash, ice scour, or other factors); or (2) may have adverse impacts on Lower Fox River uses. The additional response activities may include either:
 - Cap enhancement; and/or
 - Cap removal and removal of underlying contaminated sediment (consistent with the requirements of the primary remedial approach).

- **Institutional controls.** Institutional Controls (ICs) are necessary to prevent interference with the remedy and to reduce exposure of contaminants to

human or ecological receptors. ICs are defined as non-engineered instruments, such as administrative and legal controls that help minimize potential for exposure to contamination and protect the integrity of the remedy. ICs are also required to assure long-term protectiveness for those areas that do not allow for unlimited use and unrestricted exposure. ICs are also required to maintain the integrity of the remedy. At this Site, ICs are required to protect the cap (engineered remedy), and reduce potential exposure for all areas where residual contamination will remain. Also, interim ICs may be necessary to prevent exposure to contaminants which may be released during construction activities such as dredging, capping and placing of sand covers. Long-term protectiveness requires compliance with effective ICs. Hence, effective ICs must be implemented, monitored and maintained.

Institutional controls will be identified as part of the remedial design process in an Institutional Control Implementation and Assurance Plan (ICIAP) for review and approval by EPA and WDNR. The required ICs may include property use controls (such as easements and restrictive covenants), governmental controls (including zoning ordinances and local permits), and informational devices (including signage and fish consumption advisories). The ICIAP shall identify parties responsible (i.e., federal, State or local authorities or private entities) for implementation, enforcement, and monitoring and long-term assurance of each institutional control including costs, both short-term and long-term, and methods to fund the costs and responsibilities for each step.

The ICIAP shall include maps, which shall describe coordinates of the restricted areas on paper and provide shape files in an acceptable GIS format (i.e., NAD 83) depicting all areas that do not allow unlimited use/unrestricted exposure, where dredging is not allowed (e.g., capped areas, buried utilities and near highway bridges) and areas where ICs have been implemented along with a schedule for updating them. The maps and information about the ICs shall be made available to the public in at least several ways, such as a website that is easily accessible to the public and posted in the public library. In addition the ICIAP shall identify reporting requirements associated with each institutional control which shall include at a minimum an annual certification regarding the status and effectiveness of the ICs.

Among other things, the ICIAP shall include the following institutional controls for any capped areas:

- By using governmental and/or property use ICs, establishment of a Regulated Navigation Area (designating areas including an appropriate buffer) where use restrictions are required such as water use restrictions (e.g., limitations on anchoring, dredging, spudding, or dragging limitations, conducting salvage operations, establishment of "no wake" areas and other operating restrictions for commercial and non-commercial vessels which could potentially disturb the riverbed or the engineered remedy limitations); construction limitations (e.g.,

restrictions on utilities such as laying cable, new bridges or dredging limitations for marina expansion or maintenance); and monitoring and maintenance requirements for all areas including dams.

- Provide additional information to the public to assure protectiveness of the remedy (such as fish consumption advisories.)

XII. Comparison of the Amended Remedy and the 2002 ROD Remedy

Table 6 summarizes the differences between the 2002 ROD Remedy and the Amended Remedy. Table 7 compares the estimated sediment volumes, contaminant masses, and acreages remediated under the 2002 ROD Remedy and the Amended Remedy.

TABLE 6. Summary of Changes to 2002 ROD

Remedy Element	2002 ROD	Amended Remedy
Remedial Action Level	1.0 ppm PCBs	1.0 ppm PCBs
SWAC Goal for OU 1	0.25 ppm PCBs	0.25 ppm PCBs
Dredging Volume removed	928,400 cubic yards	406,100 cubic yards
PCB Mass removed (kilograms)	1143	843
Engineered Cap	Allowed under contingent remedy	Estimated 112 acres or less
Sand cover over sediments with PCB concentrations 1.0 – 2.0 ppm and 8-inch thickness or less that exceed the 1.0 ppm PCB RAL	None (not allowed)	Estimated 114 acres or less
Post-dredging sand cover in dredged areas if contaminants have PCB concentrations greater than the 1.0 ppm PCB RAL	Required (as necessary to meet the SWAC)	Estimated 30 acres
Transportation of dredge slurry from dredge to river-side facility	In-water pipeline	In-water pipeline
Separation of water from sediments	Mechanical presses	Geotextile tubes
Transportation of contaminated sediment from a river-side dewatering facility to landfill for final disposal	Trucks	Trucks
Disposal of dredged sediments	Contaminated sediments will go to a landfill that complies with all applicable federal and state laws and regulations	Contaminated sediments will go to a landfill that complies with all applicable federal and state laws and regulations
Institutional Controls until contaminants are at acceptable levels	Required	Required
Long-term monitoring of biota and water until contaminants are at acceptable levels	Required	Required
Monitored Natural Recovery until contaminants are at acceptable levels	Required	Required
Long-term monitoring and maintenance of cap	Required for contingent remedy	Required
Time (from 2007) to complete remediation	7 years	2 years
Cost	\$144 million	\$102 million

Fundamental change



Table 7. Comparison of Remedy Volumes, Mass Removal, and Remediation Areas for OU 1¹

Remedial Action	Sediment Volume Addressed (cubic yards; cy)		Mass Removed (kilograms; kg)		Area Remediated (acres)	
	2002 ROD	Amended Remedy	2002 ROD	Amended Remedy	2002 ROD	Amended Remedy
Dredge/dispose ³	928,400 ²	406,100	1,143	843	426	216
Engineered cap ⁴	0	325,100	0	0	0	112
Sand cover over PCB concentrations 1.0 - 2.0 ppm	0	178,800	0	0	0	114
Remedial action area total	928,400	910,000	1,143	843	426	442

Table Notes:

¹ Figures are modeled estimates except for dredge and residual sand cover components which are based on actual data. Because of variation between actual conditions and modeled estimates, the total acreage, sediment volume, and PCB mass projected for the Amended Remedy vary from the acreage, sediment volume and PCB mass estimate for the 2002 ROD Remedy.

² The ROD estimate did not account for overcut. In addition, the 928,400 cubic yard volume estimate is a modeled estimate and does not account for “high subgrade” (i.e., areas that have a hard undredgable surface at higher than expected elevation underneath the zone of contaminated sediments, resulting in a lower volume than predicted of contaminated sediments). Based on actual dredging experience, high subgrade is estimated to reduce the total dredge volume by up to 90,000 cubic yards.

³ Values indicated are based on actual data for the 2004-2006 RA activities and projections for the 2007 and 2008 RA activities. This Amended Remedy includes dredging in the following areas beyond those areas already identified by the 2007 RA Work Plan: re-dredge of Sub-Area POG2 and areas north of the trestle trail with residual concentrations above 5.0 ppm; 7-8 acres in Sub-Area D1; 40 acres in Sub-Areas D2N, E3 North, E3 South, E4, POG4, and F (due to capping constraints, based on a 6-foot post-cap water depth requirement); and 0.7 acres in Sub-Area E2.

⁴ Approximate average of 13-inches includes 3-inch overplacement allowances in both the sand and armor layers.

XIII. Statutory Findings

Under CERCLA Section 121, 42 U.S.C. § 9621 and the NCP, 40 C.F.R. § 300.430, the remedies that are selected for Superfund sites are required to be protective of human health and the environment, comply with applicable or relevant and appropriate requirements (unless a statutory waiver is justified), be cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, CERCLA includes a preference for remedies that employ treatments that permanently and significantly reduce the volume, toxicity, or mobility of hazardous wastes as a principal element, and there is a bias against off-site disposal of untreated wastes. The following sections discuss how the Amended Remedy meets these legal requirements.

This ROD Amendment satisfies these requirements as follows:

1. Protection of Human Health and the Environment

Implementation of the Amended Remedy will adequately protect human health and the environment and achieve the RAOs discussed in Section IV above, through the following actions:

- **Dredging and off-site disposal of PCB-contaminated sediment.** Dredging is focused on sediments with higher PCB concentrations.
- **In-place containment of PCB contaminated sediments under engineered caps designed to provide long-term stability.** Capping will generally be performed where PCB concentrations are lower and contaminated deposits are relatively thin.
- **Enhanced natural recovery by placement of a sand cover.** Natural recovery will be accelerated where PCB concentrations are only slightly above the 1.0 ppm PCB RAL (i.e., between 1.0 to 2.0 ppm) and would also be limited to areas where the thickness of sediment at those PCB levels is eight inches or less.
- **Construction monitoring to ensure that there are no significant releases of contaminants during remedial activities.**
- **Long-term monitoring and maintenance of caps.**
- **Long-term monitoring of surface water and biota.**
- **Implementation of an Institutional Control Implementation and Assurance Plan.**

The Amended Remedy will address sediment with PCB concentrations exceeding the 1.0 ppm RAL. The estimated post remediation PCB SWAC will meet the SWAC goals if

the RAL is not achieved in all areas within OU 1.

Implementation of the Amended Remedy in OU 1 will result in reductions in fish tissue PCB concentrations to acceptable levels within a reasonable time and in a shorter time than the 2002 ROD Remedy. Monitoring will help assess achievement of remedial action objectives. The Amended Remedy does not pose unacceptable short-term risk because experience on other projects has shown that environmental dredging and capping does not result in significant contaminant releases during implementation.

2. Attainment of Applicable or Relevant and Appropriate Requirements

ARARs are discussed in detail in the 2002 ROD for the Site, and are summarized in Table 8 below. These ARARs will be met by the Amended Remedy.

TABLE 8. Fox River ARARs

Act/Regulation	Citation
<i>Federal Chemical-Specific ARARs</i>	
TSCA ¹	40 CFR 761.79 and EPA Disposal Approval 40 CFR 761.75 40 CFR 761.61(c)
Clean Water Act – Federal Water Quality Standards	40 CFR 131 and 33 CFR 323
<i>Federal Action-/Location-Specific ARARs</i>	
Fish and Wildlife Coordination Act	16 USC 661 <i>et seq.</i> , 33 CFR 320-330 – Rivers and Harbors Act 40 CFR 6.304
Endangered Species Act	16 USC 1531 <i>et seq.</i> 50 CFR 200 50 CFR 402
Rivers and Harbors Act	33 USC 403; 33 CFR 322, 323
National Historic Preservation Act	15 USC 470; <i>et seq.</i> 36 CFR Part 800
Floodplain and Wetlands Regulations and Executive Orders	40 CFR 264.18(b) and Executive Order 11988
<i>State Chemical-Specific ARARs</i>	
Surface Water Quality Standards	NR 102, 105 (<i>To Be Considered</i>), and 207 NR 722.09 1–2
Groundwater Quality Standards	NR 140
Soil Cleanup Standards	NR 720 and 722
Hazardous Waste Statutes and Rules	NR 600–685
<i>State Action-/Location-Specific ARARs</i>	
Management of PCBs and Products Containing PCBs	NR 157
Wisconsin's Floodplain Management Program	NR 116
Solid Waste Management	NR 500–520
Fish and Game	Chapter 29.415 – Wisconsin Statutes

Note 1: TSCA establishes requirements for the handling, storage, and disposal of PCB-containing materials equal to or greater than 50 ppm. TSCA is an ARAR at the Site with respect to any PCB-

containing materials with PCB concentrations equal to or greater than 50 ppm that are removed from the Site. However, all known TSCA sediments in OU 1 have been removed during dredging operations from 2004 to 2006. This is unchanged from the 2002 ROD and all TSCA requirements for off-site disposal will still be met.

3. Cost Effectiveness

The Amended Remedy will cost approximately \$42 million less to implement than the 2002 ROD Remedy. A significant portion of the cost savings is due to the smaller volume of relatively clean sediment that will be disposed of at a landfill under the Amended Remedy. The Amended Remedy will generally achieve equivalent or better results at lower cost, so it is more cost-effective than the 2002 ROD Remedy.

4. Use of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Practicable

EPA and WDNR have determined that the Amended Remedy represents the maximum extent to which permanent solutions and treatment technologies can be used in a cost-effective manner for the Site.

5. Preference for Treatment as a Principal Element of the Remedy

Neither the 2002 ROD Remedy nor the Amended Remedy satisfies the statutory preference for treatment of the hazardous substances present at the Site because treatment was not found to be practical or cost-effective. For example, the most promising treatment technology, vitrification, was fully evaluated, but was not cost-effective and it had implementability issues (e.g., engineering uncertainties because a full-scale sediment vitrification facility had never been designed, permitted, or constructed). However, water separated from dredged sediments will be treated prior to discharge back to the Lower Fox River.

6. Five Year Review Requirements

CERCLA Section 121(c), 42 U.S.C. § 9621(c) and the NCP at 40 C.F.R. § 300.430(f)(4)(ii), require a 5-year review if the remedial action results in hazardous substances, pollutants, or contaminants remaining on Site above levels that allow for unlimited use and unrestricted exposure. Because this remedy will result in hazardous contaminants remaining on Site above levels that allow for unlimited exposure, a statutory review will be conducted within 5 years after initiation of the remedial action to ensure that the remedy is, or will be, protective of human health and the environment.

XIV. Public Participation and Documentation of Significant Changes from Proposed Plan

To fulfill the requirements of CERCLA Section 117(b), 42 U.S.C. § 9617(b), and the NCP at 40 C.F.R. §§ 300.430(f)(5)(iii)(B) and 300.430(f)(3)(ii)(A)), a ROD Amendment must document and discuss the reasons for any significant changes made to the Proposed Plan. Public participation requirements listed above, as well as those in NCP (40 C.F.R. §§ 300.435(c)(2)(ii) have been met.

The Proposed Plan was released for public comment on November 26, 2007. It proposed modifying the 2002 ROD Remedy from an all-dredging remedy with a capping contingency to: 1) dredging, 2) capping, and 3) sand cover. Compared to the 2002 ROD, the RAL and the SWAC goals are unchanged. Agency responses to all significant public comments are included in the Responsiveness Summary, attached to this ROD Amendment as Appendix A.

XV. New Information Obtained During the Public Comment Period

While there were a number of comments on the Proposed Plan that expressed concerns regarding the permanence or effectiveness of capping, no comments provided new information or evaluations based on engineering or scientific analyses or data, that demonstrated capping or sand covers would not be effective or protective.

In conclusion, there were no fundamental changes to the Proposed Plan due to new information or considerations raised in the public comment period.


Richard C. Karl, Director
Superfund Division
EPA – Region 5

Date

6/17/08


Bruce Baker, Deputy Administrator
Water Division

Date

June 6, 2008

Consent Decree Appendix I

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

I. PURPOSE

This Amended Statement of Work (“Amended SOW”) sets forth the requirements for completion of the Remedial Design (“RD”), the Remedial Action (“RA”), and other Response Work relating to Operable Unit 1 (“OU 1”) of the Lower Fox River and Green Bay Site (the “Site”). The selected remedy for OU 1 at the Site is set forth in a Record of Decision and a Record of Decision Amendment issued by the U.S. Environmental Protection Agency (“EPA”) and the Wisconsin Department of Natural Resources (“WDNR”) (collectively referred to herein as the “Response Agencies” or the “Agencies”). The original Record of Decision for OUs 1 and 2 at the Site was signed in December 2002 (the “2002 ROD”). A Record of Decision Amendment, signed in June 2008 (the “2008 ROD Amendment”), modified certain aspects of the selected remedy for OU 1. The 2002 ROD and the 2008 ROD Amendment are collectively referred to herein as the “RODs.”

This Amended SOW addresses only OU 1. Significant Remedial Design and Remedial Action activities at OU 1 have already been performed by P.H. Glatfelter Company and WTM I Company under a Consent Decree that was approved and entered on April 12, 2004, in the case captioned United States and the State of Wisconsin v. P.H. Glatfelter Co. and WTM I Co., Case No. 03-C-0949 (E.D. Wis.) (the “Original Decree”). Since entry of the Original Decree, P.H. Glatfelter Co., WTM I Company, and Menasha Corporation also have agreed to provide additional funding for the continuation of the Response Work at OU 1 pursuant to a set of Agreed Supplements to the Original Decree. This Amended SOW replaces the SOW that accompanied the Original Decree and all remaining RD activities, RA activities, and other Response Work relating to OU 1 shall be performed under the Amended Decree and this Amended SOW.¹ In the event of conflict between this Amended SOW and the

¹ The RD for OU1 was originally addressed in an Administrative Order on Consent between WTM I Company, EPA, and WDNR, captioned In the matter of the Lower Fox River and the Green Bay Site, Docket No. V-W-’03-C-745 (the “July 2003 AOC”), which was incorporated into the Original Decree and made enforceable only as to WTM I Company. Consistent with the approach taken in that prior settlement agreement, this Amended SOW specifies certain RD requirements that apply solely to WTM I Company.

original RD SOW that accompanied the July 2003 AOC, this Amended SOW shall control.

II. DESCRIPTION OF THE OU 1 REMEDIAL ACTION, AS MODIFIED BY THE 2008 ROD AMENDMENT

The remedial action addresses all areas of OU 1 containing sediment with PCB concentrations greater than the 1.0 ppm Remedial Action Level (“RAL”). The remedial action adopts removal of contaminated sediments with dredging as the primary remedial approach for sediment exceeding the 1.0 ppm PCB RAL, but it allows alternative remedial approaches to be used instead of dredging (i.e., capping and placement of a sand cover) under the eligibility criteria specified below. The short-term and long-term objectives of the remedial action include: removing and containing PCB-contaminated sediment in OU 1 to meet the RAL and/or OU-specific SWAC goals upon construction completion; achieving further reductions in PCB surface concentrations through natural recovery processes; achieving corresponding reductions in PCB levels in the water column and in fish tissue; and ensuring continuation of those benefits to human health and the environment through long-term operation and maintenance and application of institutional controls.

A. The Primary Remedial Approach and the Alternate Remedial Approaches

1. The Primary Remedial Approach

The remedial action adopts sediment removal (discussed below) as the primary remedial approach for sediment exceeding the 1.0 ppm PCB RAL. The primary remedial approach must be used to remediate such sediment unless the eligibility criteria for employing an alternate remedial approach in the specific area can be met and the alternate remedial approach is more feasible and more cost effective in that area.

Any final remedial action must incorporate the following minimum standards:

- **Sediment removal requirements.** All sediment with PCB concentrations exceeding the 1.0 ppm RAL will be targeted for removal in all areas within OU 1 unless use of an alternate remedial approach is approved by the Agencies for a particular area under the eligibility criteria listed below in Section II.A.2. More specifically, in each sediment removal area, sediment shall be removed to a target elevation that: (1) encompasses all contaminated sediment exceeding the 1.0 ppm PCB RAL (as determined from 2003-2004, 2006-2007 and 2008 sampling data and data interpolation), including an overdredge allowance, as appropriate; and (2) includes any remaining sediments with PCB concentrations greater or equal to 50 ppm.
- **Sediment removal methods and precautions.** Sediment removal will be conducted using a dredge appropriate to Site conditions. In-water pipelines

or other appropriate methods will transport the dredged sediment from the dredge to the staging area(s). Dredging experience at OU 1 from 2004 – 2007 has shown that with careful operation of environmental dredges, silt curtains or other containment devices generally are not necessary during dredging activities. However, if future operations indicate that controls are necessary to ensure protectiveness, then additional measures or modifications to the dredging process will be employed, as appropriate. Turbidity will be monitored during dredging operations. Buoys and other waterway markers will be installed around the perimeter of the in-water work area.

- **Sediment dewatering and disposal.** Dewatering will be employed at the staging facility for dredged sediment. The dewatering will be accomplished using processes such as plate and frame presses, belt filter presses, or geotextile tubes to remove water from PCB contaminated sediment before disposal. Based on dredging and dewatering from 2004 – 2007, it is expected that geotextile tubes will likely be used to complete the dewatering of dredged sediments for the remainder of the project. Dewatered contaminated sediment will be transported by truck, rail, and/or barge to a dedicated engineered landfill or another suitable upland disposal facility, consistent with applicable federal and state requirements. Based on previous experience at OU 1, it is anticipated that trucks would be utilized to transport dredged PCB-contaminated sediments to an approved upland disposal facility. All known TSCA sediments were removed during dredging operations from 2004 to 2006. Although only non-TSCA sediments are expected to remain at OU 1, if TSCA sediments were found to still remain at OU 1, dewatered sediments subject to TSCA disposal requirements must be transported consistent with TSCA requirements by truck, rail, and/or barge to a landfill facility appropriately permitted to receive TSCA waste.
- **Water treatment.** Superfund cleanups are required to meet the substantive discharge requirements of the Clean Water Act, but National Pollutant Discharge Elimination System (NPDES) permits are not required for on-site work. Thus, water generated by dredging and dewatering operations will be treated prior to discharge back to the River and will meet all state and federal water quality standards. This may include (but not be limited to) bag filter and sand filtration and granulated activated carbon (GAC) treatment. Treated water will be sampled and analyzed to verify compliance with the appropriate discharge requirements according to plans that will be developed in the design phase and approved by the Agencies.
- **Post-removal confirmatory surveys and sampling.** After removal of sediments from a particular area, a survey and sampling activities will be performed to: (1) determine whether the sediment removal requirements specified above were met; and/or (2) determine whether there is a need for post-removal residuals management measures, as specified below. If the

survey and/or sampling results show that the sediment removal requirements were not met in an area, then additional sediment in the area shall be removed until compliance with the sediment removal requirements is achieved. If the survey and/or sampling results in a particular area shows that post-removal dredge residuals management measures are needed, then those measures shall be implemented. The post-removal surveys and sampling will be done when the initial round of dredging in a particular area is completed.

- **Post-removal residuals management.** The 2008 ROD Amendment uses the term “generated residuals” for sediment that is re-suspended and re-deposited on the surface of a newly-dredged area (i.e., within the top six inches of the sediment), and it uses the term “undisturbed residuals” for sediment that is more than six inches below the surface of the newly-dredged sediment. If post-removal confirmatory sampling in a sediment removal area reveals post-removal generated residuals or undisturbed residuals with PCB concentrations exceeding the 1.0 ppm PCB RAL, then one or more of the following must occur:

- **For management of generated residuals**

- Generated residuals with a PCB concentration equal to or greater than 5.0 ppm must either be: (1) removed (typically by re-dredging) in accordance with the sediment removal requirements specified above; or (2) capped, if the eligibility criteria for that alternate remedial approach can be met, as specified below.
- Generated residuals with a PCB concentration between 1.0 ppm and 5.0 ppm must be covered with at least 6 inches of clean sand from an off-Site source (referred to as a “residual sand cover”).
- Placement of a residual sand cover as necessary to meet the SWAC goal for the OU of 0.25 ppm.

- **For management of undisturbed residuals**

- Unless EPA and WDNR approve use of a different residuals management approach in a particular area within OU 1, undisturbed residuals with a PCB concentration exceeding the 1.0 ppm PCB RAL must be removed (typically by re-dredging) in accordance with the sediment removal requirements specified above. EPA and WDNR may evaluate and approve the use of a different residuals management approach (such as a cap or a sand cover) for undisturbed residuals in limited areas if the eligibility criteria

for alternate remedial approaches in Section II.A.2 below is met.

2. Alternate Remedial Approaches

As noted above, the primary remedial approach shall be used to remediate sediment with a PCB concentration exceeding the 1.0 ppm PCB RAL, unless the eligibility criteria for employing an alternate remedial approach in the specific area can be met and the alternate remedial approach is more feasible and more cost-effective in that area. The Agencies have already determined that alternate remedial approaches will be more feasible and more cost-effective than dredging in certain areas identified in the November 2007 OU 1 Design Supplement (the "Design Supplement"), but the Design Supplement did not make final recommendations for all areas. Capping will only be allowed where the average PCB concentrations do not exceed 10.0 ppm in the top 8-inch interval of sediment underlying the cap.

The Design Supplement included alternate remedial approaches in some areas, but more specific plans for any alternate remedial approaches in OU 1 will be developed before or during completion of the remedial action. Any final remedial action must incorporate the following minimum standards:

- **Engineered caps.** An engineered cap consisting of a sand layer and an armor stone layer may be installed in an area if the following eligibility criteria are satisfied:
 - **Minimum water depth criteria for capping.**
 - Capping will not be allowed in areas within the federally-authorized navigation channels. (Note: Sand covering will be allowed in the navigation channel(s) to manage dredged residuals. These sand covers must be at least 6 inches thick and must not impede navigation.)
 - Capping will be allowed in areas outside of the federally authorized navigation channel only if the top of the cap is at least 6 feet below the low water datum.
 - **Engineered caps of 13 inches in thickness.** This type of cap may be used in areas outside of the federally authorized navigational channel if the minimum water depth criteria for capping and all of the following additional criteria are met:
 - The cap shall be constructed of at least 3 inches of clean sand covered by at least 4 inches of armor stone, with an overplacement allowance of 3 inches of sand and 3 inches of armor stone.

- The PCB concentration in the sediment in the eight inches immediately beneath the cap² shall not exceed an average of 10.0 ppm.
 - **Initial post-construction cap monitoring.** Immediately after completion of capping construction activities for both sand and then separately for armor layers, a hydrographic survey shall be performed and direct cap thickness verification sampling shall be conducted. The post-construction thickness sampling will verify that cap placement specifications and cap construction criteria have been met, including an evaluation of whether the installed cap is sufficient in aerial coverage and thickness, and whether the cap material meets all applicable physical and chemical design standards. If the initial post-construction cap monitoring in a particular area shows that the cap placement specifications and cap construction criteria have not been met, then the cap in that area shall be augmented or replaced to meet the applicable specifications and criteria.
- **Sand covers in undredged areas.**
 - A cover composed of at least an average of 6 inches (3-inch minimum thickness) of uncontaminated sand from an off-Site source may be placed over certain undredged areas that have low PCB concentrations in a relatively thin layer of PCB-contaminated sediment exceeding the 1.0 ppm PCB RAL if both of the following criteria are met:
 - The sediment beneath the sand cover must not exceed 2.0 ppm at any depth within the sediment profile.
 - The sediment profile shall contain only one 8-inch interval with PCB concentrations between 1.4 – 2.0 ppm.
 - A cover composed of at least an average of 3 inches (1.5-inch minimum) of uncontaminated sand from an off-Site source may be placed over certain undredged areas that have low PCB concentrations in a relatively thin layer of PCB-contaminated sediment exceeding the 1.0 ppm PCB RAL if both of the following criteria are met:
 - The sediment beneath the sand cover must not exceed 1.4 ppm at any depth within the sediment profile.
 - The sediment profile shall contain only one 8-inch interval with PCB concentrations between 1.0 – 1.4 ppm.

Immediately after completion of sand cover placement activities, sand cover

² This eight inches is comprised of two 4-inch sampling intervals.

cores shall be collected. These initial post–construction cores or other measures approved by the agencies will verify that sand cover placement specifications have been met, including an evaluation of whether the sand cover is sufficient in areal coverage and thickness. If the initial post-construction sand cover monitoring in a particular area shows that the sand cover placement specifications have not been met, then the sand cover in that area shall be augmented or replaced to meet the applicable specifications and criteria.

- **Exceptional areas.** EPA and WDNR may approve use of modified remedial approaches or other remedial approaches in exceptional areas at the Site based upon a showing that use of another remedial approach in an exceptional area is sufficiently protective and is more feasible and more cost effective than the primary remedial approach or any of the alternate remedial approaches described above. EPA and WDNR expect that there will only be a relatively small number of areas at the Site that will need to be treated as exceptional areas, including some shallower near shore areas or areas near utilities. The specific remedial approach for each exceptional area will be subject to review and approval by EPA and WDNR, and will be included in the final remedial design.

B. The Relationship Between the Remedial Action Level (RAL) Performance Standard and the Surface-Weighted Average Concentration (SWAC) Goal

The 2008 ROD Amendment requires remediation of all contaminated sediment exceeding the 1.0 ppm PCB Remedial Action Level (RAL) either by the primary remedial approach or by one of the alternate remedial approaches discussed above. The 2008 ROD Amendment also establishes two standards that will be used to judge the completion of construction of the remedial action for OU 1: a RAL Performance Standard and a SWAC goal. As explained below, construction of the remedy will be deemed complete for OU 1 if the RAL Performance Standard has been met throughout the OU. If the RAL Performance Standard has not been met after employing the primary remedial approach and/or the alternate remedial approaches throughout the OU, then the remedy will be deemed complete if the SWAC, as determined by WDNR and EPA, meets the SWAC goal for the OU. The construction of the remedy will not be deemed complete based on the SWAC goal unless and until all sediment exceeding the RAL has been remediated using the primary remedial approach and/or the alternate remedial approaches.

The 2008 ROD Amendment adopts the same RAL as the 2002 ROD, and it incorporates a presumption in favor of remediation by sediment removal, but it also allows remediation of sediment above the RAL by alternate remedial approaches. The mass and volume of contaminated sediment to be removed under the primary remedial approach will depend upon the horizontal footprint and depth of the contamination exceeding the 1.0 ppm PCB RAL. The use of alternate remedial approaches for

remediation of sediment exceeding the 1.0 ppm PCB RAL will depend upon the depth and level of contamination of the sediment and location-specific design requirements and eligibility criteria, as detailed above.

If all sediment exceeding the 1.0 ppm PCB RAL within OU 1 is removed and/or contained using the primary remedial approach and/or the alternate remedial approaches, then construction of the remedy in OU 1 will be deemed complete based on achievement of the RAL Performance Standard. Achievement of the RAL Performance Standard will be assessed soon after completion of sediment removal, capping, and sand cover placement activities. As discussed below, even if the RAL Performance Standard is not met, construction of the remedy in OU 1 can still be deemed complete based on the Agencies' determination that the SWAC goal has been achieved.

As explained in the 2002 ROD, a SWAC at or near 0.25 ppm is expected to reduce PCB levels in sport fish to acceptable levels within a reasonable time period after completion of active remediation. The remedial action therefore requires achievement of an OU-specific SWAC goal if the RAL Performance Standard has not been met after employing the primary remedial approach and/or the alternate remedial approach throughout OU 1 (e.g., if post-removal residuals exceeding the 1.0 ppm PCB RAL remain in an area after it has been dredged to the required target elevation). Under the remedial action, the PCB SWAC goal for OU 1 is 0.25 ppm PCBs. If the SWAC calculation, as determined by the EPA and WDNR, is met within OU 1 after all sediment exceeding the 1.0 ppm PCB RAL has been remediated using the primary remedial approach and/or the alternate remedial approaches, then the construction of the remedial action can be deemed complete based on the Agencies' determination that the SWAC goal has been achieved.

The remedial action offers a range of options for completing construction of the remedy if all contaminated sediment exceeding the 1.0 ppm PCB RAL has been remediated in OU 1 using the primary remedial approach and/or the alternate remedial approaches, but it still appears that the RAL Performance Standard or achievement of the SWAC goal will not be met. Those options are:

1. Performing additional dredging or capping to ensure that all sediments with PCB concentrations greater than the 1.0 ppm PCB RAL are removed, contained or covered;
2. Installing capping in areas with higher PCB concentrations (provided minimum water depth criteria and other capping criteria and design requirements are met);
3. Placing a residual sand cover over dredged areas; and
4. Placing a sand cover over undredged areas (consistent with the general requirements for sand covers outlined above).

Once the Agencies have determined that the RAL Performance Standard or the SWAC goal is achieved in OU 1, the construction of the OU 1 remedy will be deemed complete (although ongoing monitoring and maintenance requirements and contingencies that are part of the remedial action will continue to apply).

C. Other Features of the Remedial Action

The remedial action includes the following additional elements:

- **Site mobilization and preparation.** Staging area(s) will be required for facilities associated with sediment dewatering, sediment handling, water treatment, and material handling for cap and cover operations. Specific staging areas will likely be facilities previously utilized for the OU 1 project from 2004 to 2007. Docking facilities for dredging equipment and ancillary equipment for capping or sand covers at the existing facility will also likely be utilized.
- **Demobilization and Staging Area(s) restoration.** Demobilization, Staging area(s) restoration, and decontamination of all equipment will require removing all equipment from the staging and work areas and restoring the staging area(s) as needed to meet the legal requirements or any agreement with the property owner.
- **Natural recovery after remediation.** Although the RAL Performance Standard or the SWAC goal will need to be met before construction of the remedial action can be deemed complete in OU 1, it will take additional time for natural recovery before some of the remedial action objectives are achieved.
- **Long-term monitoring, cap maintenance, and institutional controls.** These requirements are discussed below in Section II.D.

D. Long Term Monitoring, Cap Maintenance, and Institutional Controls

- **Long-term monitoring of surface water and biota.** The remedial action requires long-term monitoring of surface water and biota to assess progress in achieving the remedial action objectives. Monitoring will continue until acceptable levels of PCBs are reached in surface water and fish. A detailed Long-Term Monitoring Plan, specifying the types and frequency of monitoring, will be developed.
- **Long-term cap monitoring.** The remedial action requires long-term monitoring of any engineered caps that are installed at the Site to confirm their long-term integrity and protectiveness. The long-term monitoring will include:
 - **Hydrographic surveys and core sampling.** A hydrographic survey

shall be performed and cores of the cap shall be collected, at a minimum, 2 years and 4 years after the initial post-construction survey and every 5 years thereafter. Based on the results observed in that periodic monitoring, EPA and WDNR may increase or decrease the frequency of periodic monitoring. EPA and WDNR may require additional cap monitoring (between periodic monitoring events) after particular events that could cause cap damage, such as major storm events, ice scour events, or propeller wash scour events.

- **Monitoring for physical integrity.** Hydrographic survey results and core samples collected during cap monitoring events will be analyzed to determine cap thickness and integrity.
- **Monitoring for chemical containment.** Some core samples collected during cap monitoring events will also be analyzed for PCB contamination within 6 inch intervals (or less) to determine whether contamination is being effectively contained and isolated from the biota.

- **Cap enhancement and/or removal in response to cap degradation.** If monitoring, or other information, indicates that the cap in an area no longer meets its original as-built design criteria and that degradation of the cap in the area may result in an actual or threatened release of PCBs at or from the area, then EPA and WDNR shall identify additional response activities to be undertaken in the area. If monitoring or other information shows a pattern of cap degradation in multiple areas, then EPA and WDNR may identify additional response activities to be undertaken in multiple capped areas at the Site (including in areas that have not yet shown any signs of degradation). The additional response activities shall include either:

- Cap enhancement (e.g., application of a thicker sand layer or stone layer or use of larger armor stone); and/or
- Cap removal and removal of underlying contaminated sediment (consistent with the requirements of the primary remedial approach).

- **Cap enhancement and/or removal in response to changed water levels.** EPA and WDNR may identify additional response activities to be undertaken in a capped area if monitoring or other information indicates that the minimum water depth criteria for capping are no longer being met in the area and that the failure to meet the water depth criteria: (1) may result in an actual or threatened release of PCBs at or from the area (e.g., due to an increased risk of damage caused by propeller wash, ice scour, or other factors); or (2) may have adverse impacts on Lower Fox River uses. The additional response activities may include either:

- Cap enhancement; and/or
 - Cap removal and removal of underlying contaminated sediment (consistent with the requirements of the primary remedial approach).
- **Institutional controls.** Institutional Controls (ICs) are necessary to prevent interference with the remedy and to reduce exposure of contaminants to human or ecological receptors. ICs are defined as non-engineered instruments, such as administrative and legal controls that help minimize potential for exposure to contamination and protect the integrity of the remedy. ICs are also required to assure long-term protectiveness for those areas that do not allow for unlimited use and unrestricted exposure. ICs are also required to maintain the integrity of the remedy. At this Site, ICs are required to protect the cap (engineered remedy), and reduce potential exposure for all areas where residual contamination will remain. Also, interim ICs may be necessary to prevent exposure to contaminants which may be released during construction activities such as dredging, capping and placing of sand covers. Long-term protectiveness requires compliance with effective ICs. Hence, effective ICs must be implemented, monitored and maintained.

Institutional controls will be identified as part of the remedial design process in an Institutional Control Implementation and Assurance Plan (ICIAP) for review and approval by EPA and WDNR. The required ICs may include property use controls (such as easements and restrictive covenants), governmental controls (including zoning ordinances and local permits), and informational devices (including signage and fish consumption advisories). The ICIAP shall identify parties responsible (i.e., federal, State or local authorities or private entities) for implementation, enforcement, and monitoring and long-term assurance of each institutional control including costs, both short-term and long-term, and methods to fund the costs and responsibilities for each step.

The ICIAP shall include maps, which shall describe coordinates of the restricted areas on paper and provide shape files in an acceptable GIS format (i.e., NAD 83) depicting all areas that do not allow unlimited use/unrestricted exposure, where dredging is not allowed (e.g., capped areas, buried utilities and near highway bridges) and areas where ICs have been implemented along with a schedule for updating them. The maps and information about the ICs shall be made available to the public in at least several ways, such as a website that is easily accessible to the public and posted in the public library. In addition the ICIAP shall identify reporting requirements associated with each institutional control which shall include at a minimum an annual certification regarding the status and effectiveness of the ICs.

Among other things, the ICIAP shall include the following institutional controls for any capped areas:

- By using governmental and/or property use ICs, establishment of a Regulated Navigation Area (designating areas including an appropriate buffer) where use restrictions are required such as water use restrictions (e.g., limitations on anchoring, dredging, spudding, or dragging limitations, conducting salvage operations, establishment of "no wake" areas and other operating restrictions for commercial and non-commercial vessels which could potentially disturb the riverbed or the engineered remedy limitations); construction limitations (e.g., restrictions on utilities such as laying cable, new bridges or dredging limitations for marina expansion or maintenance); and monitoring and maintenance requirements for all areas including dams.
- Provide additional information to the public to assure protectiveness of the remedy (such as fish consumption advisories.)

III. THE RESPONSE WORK

A. Timing

Settling Defendants shall commence the work required by this Amended SOW by no later than the Date of Lodging of the Amended Decree and shall continue such work until all requirements under the RODs have been met and the performance standards set forth in the RODs have been achieved. Among other things, this Amended SOW requires the immediate submission of an integrated Final Design and Remedial Action Work Plan for work to be performed in 2008 and 2009, and later submission of corresponding plans for work to be performed after 2009. The Settling Defendants shall submit all such plans in accordance with the schedule specified in Section IV of this Amended SOW, and shall implement the approved plans as a requirement of this Amended SOW.

B. Scope of the Work

The Amended Consent Decree and this Amended SOW: (i) require Settling Defendant WTM I Company to perform all remaining aspects of the Remedial Design for OU 1 in accordance with the RODs and all RD submittals that are approved by the Response Agencies; (ii) require the Settling Defendants to perform all remaining aspects of the Remedial Action for OU 1 in accordance with the RODs and all Remedial Action Work Plans that are approved by the Response Agencies; and (iii) require the Settling Defendants to perform all other Response Work – including operation and maintenance and long-term monitoring activities – as specified by the RODs and all relevant plans that are approved by the Response Agencies. That work shall include the continuation of sediment remediation in OU 1 in accordance with the schedules contained in the approved RD submittals and Remedial Action Work Plans and in Section IV of this SOW, with continuation of full-scale sediment remediation throughout subsequent years (until completion of construction of the OU 1 remedy), and performance of monitoring and maintenance activities (during and after construction of

the remedy, as required by the RODs, the RD submittals, the Remedial Action Work Plans, and other pertinent plans).

C. Remedial Design and Remedial Action Plans

As detailed below and in accordance with Section XII of the Amended Decree, the Settling Defendants shall submit the following plans for review and approval by the Response Agencies, and the Settling Defendants shall implement such plans as approved by the Response Agencies.

1. Final Design and Remedial Action Work Plan for 2008-2009 Response Work

As set forth herein and specifically in accordance with the schedule set forth in Section IV of this Amended SOW, Settling Defendants shall prepare and submit an integrated Final Design and Remedial Action Work Plan for 2008-2009 that establishes detailed plans and schedules for performance of all elements of the Response Work in 2008 and 2009. Settling Defendant WTM I Company shall be responsible for preparation of the Final Design elements of the integrated submittal and Settling Defendants shall be jointly responsible for preparation of the Remedial Action Work Plan portions of the submittal.

The Final Design shall include relevant design information on site staging and support areas, as well as specific design plans for the following elements of the 2008-2009 Response Work:

- ♦ dredging;
- ♦ sediment dewatering, loading, hauling, and disposal;
- ♦ water treatment and discharge;
- ♦ sand cover placement; and
- ♦ engineered cap placement.

Consistent with the requirements that were originally imposed by Section III of the RD SOW for the July 2003 AOC and Section III of the RA SOW that accompanied the Original Decree, the integrated submittal shall also include final versions of the following plans for Remedial Action activities to be performed in 2008-2009:

- ♦ a Health and Safety and Contingency Plan;
- ♦ a Construction Quality Assurance Project Plan;
- ♦ an Operation and Maintenance Plan;
- ♦ a Sediment Removal Verification Plan;
- ♦ a Quality Assurance Project Plan for the Operation and Maintenance Plan;

- ◆ an updated Regulatory Substantive Requirements Compliance Plan;
- ◆ a Dredge Plan;
- ◆ a Dewatering Plan;
- ◆ a Water Treatment Plan;
- ◆ a Loading, Transportation, and Disposal Plan;
- ◆ a Sand Cover and Armored Cap Placement Plan;
- ◆ a Capital and Operation and Maintenance Cost Estimate; and
- ◆ a Final Project Schedule for the construction and implementation of the Response Work in 2008-2009 which identifies timing for initiation and completion of all critical path tasks.

The integrated submittal shall also include a description of: (i) the organization, responsibility, and authority of the Settling Defendants' project team; (ii) plans for ensuring effective communications between Settling Defendants' project team and the Response Agencies; and (iii) the Settling Defendants' plans for addressing other environmental considerations that are potentially relevant to the 2008-2009 Response Work (including wetland protection, stormwater management, and surface water turbidity monitoring).

2. Pre-Final and Final Design and Draft and Final Remedial Action Work Plan for Post 2009 Response Work

As set forth herein and specifically in accordance with the schedule set forth in Section IV of this SOW, Settling Defendants shall prepare and submit: (i) an integrated Pre-Final Design and Draft Remedial Action Work Plan for all remaining Response Work to be performed after 2009; followed by (ii) an integrated Final Design and Remedial Action Work Plan that establishes detailed plans and schedules for all remaining Response Work to be performed after 2009. Settling Defendant WTM I Company shall be responsible for preparation of the Pre-Final and Final Design elements of those integrated submittals and Settling Defendants shall be jointly responsible for preparation of the Draft and Final Remedial Action Work Plan portions of those submittals.

The Post 2009 Pre-Final and Final Design shall include relevant design information on site staging and support areas (including information on any continued use of such areas and information on site demobilization and restoration), as well as specific design plans for all elements of the remaining Response Work.

The integrated submittals shall also include draft and final versions of a Remedial Action Work Plan for the Post 2009 Response Work, which shall include modified or updated versions of the plans that are required to be included in the Remedial Action

Work Plan for 2008-2009 (unless a particular plan is no longer relevant to the Response Work that remains after 2009).

The integrated submittals shall specifically include detailed plans for implementing all long term monitoring, operation and maintenance, and institutional controls requirements, as described in Section II.D of this Amended SOW and Paragraph 14 and Section VIII of the Amended Decree. As envisioned by the Amended Decree, the Long Term Monitoring Plan may be included as part of the Operation and Maintenance Plan. Institutional controls requirements shall be addressed in an Institutional Controls Plan (also called an Institutional Control Implementation and Assurance Plan).

C. Content of Certain Supporting Plans

1. Health and Safety Plan

The Health and Safety Plan shall be designed to protect on-site personnel and area residents from physical, chemical and all other hazards posed by activities conducted as part of the work.

2. Quality Assurance Project Plans

The Quality Assurance Project Plans shall describe the site-specific components of the quality assurance program that the Settling Defendants shall use to ensure that the completed project meets or exceeds all design criteria, plans, and specifications.

D. Other Requirements

1. Community Relations Support

The Response Agencies shall implement a community relations program. Settling Defendants shall cooperate with the Response Agencies and, at the request of the Response Agencies, shall participate in the preparation of appropriate information to be disseminated to the public by the Response Agencies. At the request of the Response Agencies, Settling Defendants shall participate in public meetings that may be held or sponsored by the Response Agencies to explain activities at or concerning the Site.

Community relations support will be consistent with Superfund community relations policy, as stated in the "Guidance for Implementing the Superfund Program" and Community Relations in Superfund - A handbook.

2. Progress Reports

Settling Defendants shall submit Monthly RD/RA Progress Reports and Quarterly Reports as required by Section XI of the Amended Decree. Upon request by the Response Agencies, Settling Defendants shall also provide more frequent progress reports (e.g., daily and/or weekly reports on sediment remediation progress and production).

E. Implementation of the Response Work

Settling Defendants shall implement the Response Work in accordance with the RODs, this Amended SOW, and the plans and schedules contained in the submittals and plans that are approved by the Response Agencies under this Amended SOW.

F. Completion of the Remedial Action for OU1

1. Construction Completion inspection

Within 90 days after completion of all phases of construction specified by the RD and after conducting post-construction sampling to determine whether the RAL Performance Standard or the SWAC goal has been achieved as described in Section II.B of this Amended SOW, the Settling Defendants shall send the Response Agencies written notice for the purpose of scheduling and conducting a Construction Completion Inspection. The Construction Completion Inspection should consist of a site tour by the Settling Defendants and the Response Agencies, a review of the post-construction sampling data, and a discussion regarding the Settling Defendants' plans for: (1) performing O&M, Long Term Monitoring, and Institutional Controls; and (2) taking any additional steps required to ensure completion of the RA such that the Performance Standards are achieved.

2. RA Completion Plan

If the Performance Standards have not been achieved by the time of the Construction Completion Inspection, then the written notice sent to the Response Agencies shall indicate that the Construction Completion inspection will not serve as a Pre-Certification Inspection under Amended Decree Subparagraph 44.a. Within 60 days after confirmation at the Construction Completion Inspection that the Performance Standards have not been achieved, Settling Defendants shall submit an RA Completion Plan. The RA Completion Plan shall include a description of the characteristics of areas that do not comply with the Performance Standards and a detailed description (e.g., map, data tables and location information) showing areas in compliance or not in compliance with Performance Standards. Sampling and locational information should be provided in both hardcopy and EPA Superfund's designated digital format (i.e., Superfund Electronic Data Deliverable, Specification Manual 1.05, website address: <http://www.epa.gov/region5superfund/edman/>). In addition to describing noncompliance areas, the RA Completion Plan shall outline any additional RA construction work required to achieve Performance Standards, a schedule for completing any additional RA construction work, and a proposed date for a Construction Completion Re-Inspection. The Settling Defendants shall implement the RA Completion Plan as approved by the Response Agencies.

3. RA Pre-Certification Inspection

If the Settling Defendants believe that the RA has been fully performed such that the Performance Standards have been achieved, then the written notice sent to the

Response Agencies shall indicate that the Construction Completion Inspection will also serve as an RA Pre-Certification Inspection under Amended Decree Subparagraph 44.a. If, after the RA Pre-Certification Inspection, the Settling Defendants still believe that the RA has been fully performed such that the Performance Standards have been achieved, Settling Defendants shall submit an RA Certification of Completion Report within 60 days after the RA Pre-Certification Inspection. In the RA Certification of Completion Report, a registered professional engineer and the Project Coordinator of the Settling Defendants shall certify that the RA has been completed in full satisfaction of the requirements of the Amended Decree. The Report shall also contain the following statement, signed by a responsible corporate official of each Settling Defendant:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The Report shall document that the RA has been performed such that the Performance Standards have been achieved. The Report shall include, but shall not be limited to, the following elements: (a) an introduction; (b) a chronology of events; (c) a summary of construction activities; (d) a summary of the RA Pre-Certification Inspection; (e) record drawings signed and stamped by a professional engineer; (e) an explanation of any modifications to the plans and why these were necessary for the project; (f) a verification that the RA has been completed such that the Performance Standards have been achieved; (g) a listing of the criteria, established before the construction was initiated, for judging the functioning of the RA and also explaining any modification to these criteria; (h) results of site monitoring, indicating that the RA meets or exceeds the Performance Standards; (i) an explanation of the O&M taking place at the site and any changes in the Final O&M Plan that were required based on modification of site plans during construction; and (j) a summary of project costs.

4. EPA Response to RA Certification of Completion Report

If, after completion of the RA Pre-Certification Inspection and receipt and review of the RA Certification of Completion Report, EPA, after reasonable opportunity to review and comment by the State, determines that the RA or any portion thereof has not been completed in accordance with the Amended Decree such that the Performance Standards have not been achieved, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to Amended Decree Subparagraph 44.a to complete the RA such that the Performance Standards are achieved. EPA will set forth in the notice a schedule for performance of such activities consistent with the Amended Decree and this SOW or require the Settling Defendants to submit an RA Completion Plan pursuant to Section III.F.2 of this Amended SOW.

If EPA concludes, based on the RA Pre-Certification Inspection and the RA

Certification of Completion Report, and after a reasonable opportunity for review and comment by the State, that the RA has been performed in accordance with the Amended Decree such that the Performance Standards have been achieved, EPA will so certify in writing to Settling Defendants. This certification shall constitute the Certification of Completion of the RA for purposes of the Amended Decree.

G. Completion of the Response Work for OU1

1. Response Work Pre-Certification Inspection

Within 90 days after Settling Defendants conclude that all phases of the Response Work have been fully performed, Settling Defendants shall send written notice to the Response Agencies for the purpose of scheduling and conducting a Response Work Pre-Certification Inspection to be attended by Settling Defendants and the Response Agencies. The purpose of the inspection is to determine whether the O&M, the Long Term Monitoring, and the Institutional Controls have been fully performed, as required by the Institutional Controls Plan and the Final O&M Plan.

2. Continuation of Response Work

If, after the Response Work Pre-Certification Inspection, EPA determines (after a reasonable opportunity for review and comment by the State) that the Response Work or any portion thereof has not been fully performed, the Settling Defendants shall continue to perform O&M, Institutional Controls, and Long Term Monitoring as required by the Institutional Controls Plan and the Final O&M Plan. The Settling Defendants shall continue the Response Work pursuant to a schedule approved by EPA, after reasonable opportunity for review and comment by the State.

3. Response Work Certification of Completion Report

If, after the Response Work Pre-Certification Inspection, the Settling Defendants believe that the Response Work has been fully performed, the Settling Defendants shall submit a Response Work Certification of Completion Report within 60 days after the Response Work Pre-Certification Inspection. In the Response Work Certification of Completion Report, a registered professional engineer and the Project Coordinator of the Settling Defendants shall certify that the Response Work has been completed in full satisfaction of the requirements of the Amended Decree. The Report shall also contain the following statement, signed by a responsible corporate official of each Settling Defendant:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The report shall document that the Response Work has been fully performed. The

report shall include, but not be limited to, the following elements: (a) an introduction; (b) a chronology of events beginning with the Certification of Completion of the RA; (c) a summary of inspections for completion of Response Work; (d) record drawings signed and stamped by a professional engineer for any additional work completed since the Certification of Completion of the RA; (e) an explanation of any modifications to the plans and why these were necessary for the project; (f) a verification that the Response Work is complete; (g) a listing of the criteria, established before the construction was initiated, for judging the functioning of the RA and also explaining any modification to these criteria; (h) results of site monitoring, indicating that the Response Work is complete; (i) an explanation of any changes in the Final O&M Plan after the Certification of Completion of the RA; and (j) a summary of project costs after the Certification of Completion of the RA.

4. EPA Response to Response Work Certification of Completion Report

If, after completion of the Response Work Pre-Certification Inspection and receipt and review of the Response Work Certification of Completion Report, EPA, after reasonable opportunity to review and comment by the State, determines that the Response Work or any portion thereof has not been fully performed, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to Amended Decree Subparagraph 45.a to complete the Response Work. EPA will set forth in the notice a schedule for performance of such activities consistent with the Amended Decree and this Amended SOW or require the Settling Defendants to submit a schedule for continuation of the Response Work pursuant to Section III.G.2 of this Amended SOW.

If EPA concludes, based on the Response Work Pre-Certification Inspection and the Response Work Certification of Completion Report, and after a reasonable opportunity for review and comment by the State, that the Response Work has been fully performed in accordance with the Amended Decree, EPA will so certify in writing to Settling Defendants. This certification shall constitute the Certification of Completion of the Response Work for purposes of the Consent Decree.

IV. SUMMARY OF MAJOR MILESTONES AND DEADLINES

A summary of major milestones for the Response Work is presented below. Settling Defendants shall adhere to the following schedule unless it is modified in writing by EPA's Remedial Project Manager.

<u>Deliverable/Milestone</u>	<u>Due Date</u>
Final Design and Remedial Action Work Plan for 2008-2009	Within 10 calendar days after the Date of Lodging of the Amended Consent Decree
Pre-Final Design and Draft Remedial Action Work Plan for Remaining Response Work	February 1, 2010
Final Design and Remedial Action Work Plan for Remaining Response Work	Within 30 calendar days after receipt of the Response Agencies' comments on the Pre-Final Design and Draft Remedial Action Work Plan for Remaining Response Work
Pre-Completion Inspection	At least 90 days before the anticipated completion of all phases of construction specified by the RD, and before final demobilization and staging area restoration efforts
Construction Completion Inspection/ RA Pre-Certification Inspection	Within 90 days after completion of all phases of construction specified by the RD and after conducting post-construction sampling to determine whether the RAL Performance Standard or the SWAC goal has been achieved as described in Section II.B of this Amended SOW; a Construction Completion Inspection will also serve as an RA Pre-Certification Inspection if the Settling Defendants believe that the RA has been performed such that the Performance Standards have been achieved
RA Certification of Completion Report	Within 60 days after an RA Pre-Certification Inspection, provided Settling Defendants still believe Performance Standards have been achieved
Revised RA Certification of Completion Report	30 calendar days after receipt of the Response Agencies' comments on the Report
Certification of Completion of the RA	Upon EPA's approval of the RA Certification of Completion Report
Response Work Pre-Certification Inspection	Within 90 days after Settling Defendants conclude that all phases of Response Work are completed
Response Work Certification of Completion Report	Within 60 days after Response Work Pre-Certification Inspection, provided Settling Defendants believe Response Work has been fully performed

Revised Response Work Certification of Completion Report	30 calendar days after receipt of the Response Agencies' comments on the Report
Issuance of Certification of Completion of Response Work	Upon EPA's approval of the Response Work Certification of Completion Report
Monthly Progress Reports	By the 10 th of each month from the Date of Lodging of the Amended Decree for so long as the RA continues, until Certification of Completion of the RA
Quarterly Reports	Quarterly basis for so long as the RA continues under the Amended Decree, until Certification of Completion of the RA

Consent Decree Appendix J
Form of EPA Payment Directive

IRREVOCABLE LETTER OF CREDIT NO. XXXXXXXXXXXXX

(DATE)

PNC BANK, NATIONAL ASSOCIATION
500 FIRST AVENUE 3RD FLOOR
PITTSBURGH PA 15219

PAYMENT DIRECTIVE UNDER LETTER OF CREDIT NO. XXXXXXXXXXXXX

SIR OR MADAM:

I (STATE NAME AND TITLE) AM WRITING IN MY CAPACITY AS THE AUTHORIZED REPRESENTATIVE OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY (“EPA”), THE DESIGNATED BENEFICIARY UNDER THE ABOVE-REFERENCED LETTER OF CREDIT (“LOC”). THE LOC WAS ESTABLISHED PURSUANT TO AN “AMENDED CONSENT DECREE FOR REMEDIAL DESIGN AND REMEDIAL ACTION AT OPERABLE UNIT 1 OF THE LOWER FOX RIVER AND GREEN BAY SITE” (“AMENDED CONSENT DECREE”) IN THE CASE CAPTIONED UNITED STATES AND THE STATE OF WISCONSIN V. P.H. GLATFELTER COMPANY AND WTM I CO., CASE NO. 03-C-0949 (E.D. WIS.), AND SUBPARAGRAPH 50(c)(4) OF THAT AMENDED CONSENT DECREE SPECIFIED THAT THE FULL AMOUNT OF THE LOC (THE “PAYMENT AMOUNT”) WOULD BE PAYABLE TO A DESIGNATED ESCROW ACCOUNT IMMEDIATELY UPON RECEIPT OF THIS PAYMENT DIRECTIVE IF AN AMOUNT EQUAL TO THE PAYMENT AMOUNT WAS NOT PAID TO THE ESCROW ACCOUNT BY OR FOR THE ACCOUNT OF P.H. GLATFELTER COMPANY (“THE GLATFELTER PAYMENT”) BEFORE JANUARY 15, 2009 AND THIS CERTIFICATION IS DATED NO EARLIER THAN JANUARY 15, 2009.

EPA HEREBY CERTIFIES THAT THE GLATFELTER PAYMENT WAS NOT PAID BEFORE JANUARY 15, 2009 AND THAT THIS CERTIFICATION IS DATED NO EARLIER THAN JANUARY 15, 2009, AS PROVIDED UNDER SUBPARAGRAPH 50(c)(4) OF THE AMENDED CONSENT DECREE AND EPA THEREFORE DIRECTS YOUR INSTITUTION TO PAY THE FULL AMOUNT DUE UNDER THE LOC (\$ 6,500,000.00) IMMEDIATELY UPON RECEIPT OF THIS PAYMENT DIRECTIVE BY WIRE TRANSFER, IN ACCORDANCE WITH THE FOLLOWING PAYMENT INSTRUCTIONS:

PAYMENT AMOUNT: \$6,500,000.00

PAYEE: FOX RIVER OU1 ESCROW ACCOUNT

C/O DEUTSCHE BANK TRUST COMPANY AMERICAS

SUPERFUND DIVISION DIRECTOR
U.S. ENVIRONMENTAL PROTECTION
AGENCY, REGION 5

WIRE TRANSFER INSTRUCTIONS:

DEUTSCHE BANK TRUST COMPANY AMERICAS

ABA 021001033

ACCOUNT NAME: TRUST AND SECURITIES SERVICES

ACCOUNT NUMBER: 01419647 FCT

PAYMENT DETAILS: GLATFELTER SUB-ACCOUNT

NO. 58528 REF: FOX RIVER OU-1 ESCROW ACCOUNT