

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA,

STATE OF MICHIGAN, and

THE SAGINAW CHIPPEWA INDIAN  
TRIBE OF MICHIGAN,

Plaintiffs,

V.

THE DOW CHEMICAL COMPANY,

Defendant.

Case No. 1:19-cv-13292

Judge Marianne O. Battani

## CONSENT DECREE

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WHEREAS, Plaintiffs, United States of America (“United States”), the State of Michigan (“State”), and the Saginaw Chippewa Indian Tribe of Michigan (“Tribe”) have filed a Complaint in this action, asserting claims for recovery of natural resource damages pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (“CERCLA”), 42 U.S.C. § 9601 *et seq.*, and Sections 3115(2) and 20126a of the Michigan Natural Resources and Environmental Protection Act (“NREPA”), MCL 324.3115(2) and 324.20126a, against The Dow Chemical Company (hereinafter “Dow”). The Complaint alleges that (i) there have been releases of hazardous substances, including but not limited to polychlorinated dibenzo-*p*-dioxin compounds and polychlorinated dibenzofuran compounds, into the environment at and from Dow’s Michigan Operations, Midland, Plant located at 1000 East Main Street, Midland, Michigan 48667 (hereinafter “Midland Facility”); (ii) such releases resulted in injuries to, destruction of, loss of, or loss of use of natural resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States, the State, and the Tribe, including injuries resulting from response actions undertaken to clean up released hazardous substances or otherwise protect human health and the environment from released hazardous substances; (iii) designated natural resource trustees, including the United States Department of the Interior (“DOI”), represented by the United States Fish and Wildlife Service (“USFWS”) and the

Bureau of Indian Affairs (“BIA”) (collectively referred to herein as the “Federal Trustee”), the Saginaw Chippewa Indian Tribe of Michigan (hereinafter the “Tribal Trustee”), the State of Michigan, represented by the Michigan Department of Environment, Great Lakes, and Energy (“EGLE”), the Michigan Department of Natural Resources (“MDNR”), and the Michigan Attorney General (collectively, the “State Trustees”), have incurred unreimbursed natural resource damage assessment costs as a result of such releases, and (iv) Dow is liable for natural resource damages for such injuries, destruction, and losses, including reasonable natural resource damage assessment costs, under CERCLA and applicable provisions of State law.

WHEREAS, the Federal Trustee, State Trustees, and Tribal Trustee (hereinafter “the Trustees”) allege that they share trusteeship of various Natural Resources within the Assessment Area and that such Natural Resources were injured as a result of releases of hazardous substances at or from the Midland Facility.

WHEREAS, the Trustees previously entered into a Memorandum of Understanding dated February 9, 2006, providing a framework for coordinating assessment and restoration efforts.

WHEREAS, the Trustees have undertaken natural resource damage assessment activities in accordance with 43 C.F.R. Part 11, including natural

resource damage assessment activities undertaken cooperatively with Dow, as well as natural resource damage assessment activities undertaken independently by the Trustees.

WHEREAS, Dow has previously reimbursed approximately \$4,692,590.46 of Natural Resource Damage Assessment Costs incurred by Federal, State, and Tribal Trustees.

WHEREAS, prior to entering into this Consent Decree, Dow voluntarily undertook certain activities that the Trustees agree have contributed toward restoration, rehabilitation, or replacement of injured natural resources, including:

- providing funding for purchase of the former Germania Town and Country Club in Saginaw, Michigan, by The Nature Conservancy, which has allowed the property to begin reverting to a natural state and which transferred 135 acres of this property to the USFWS in May of 2014;
- providing funding to The Nature Conservancy to purchase the former Bourdow Trucking property at 2039 and 2041 Maple Street, a 6.7 acre parcel, and The Nature Conservancy has transferred it to the USFWS;
- providing funding to The Nature Conservancy to purchase the former Kohl property at 2401 Maple Street, a 6.3 acre parcel, and The Nature Conservancy is in the process of transferring it to the USFWS as of October 5, 2018; and

- securing conservation covenants on undeveloped portions of certain properties within the eight-year floodplain of the Tittabawassee River to preserve habitat by preventing conversion of undeveloped areas to areas maintained for residential use.

WHEREAS, in accordance with 43 C.F.R. § 11.81, the Trustees have prepared a draft Restoration Plan/Environmental Assessment for the Tittabawassee River System Natural Resource Damage Assessment (hereinafter “Restoration Plan”), and the Trustees intend to invite public comment on the draft Restoration Plan at approximately the same time period that the United States Department of Justice provides an opportunity for submission of public comments on this Consent Decree (as provided in Section XXIX (Public Participation), below).

WHEREAS, in order to implement response actions, the EGLE, formerly the Michigan Department of Environmental Quality (“MDEQ”), and Dow have implemented numerous corrective actions under the authority of Part 111 of Act 451; and the United States Environmental Protection Agency (“EPA”) and Dow have entered into numerous separate Administrative Settlement Agreements and Orders on Consent (“AOCs”) under the authority of Sections 104, 106(a), 107, and 122 of CERCLA.

WHEREAS, effective January 21, 2010, EPA, MDEQ, and Dow entered into the Administrative Order on Consent In The Matter of: The Dow Chemical

Company, CERCLA Docket No. V-W-10-C-942 (“the 2010 AOC”), under which Dow agreed to perform remedial investigation, feasibility study, and/or engineering evaluation and cost analysis, as well as response design (with EPA and EGLE oversight) and to pay future response costs of EPA and EGLE at the site, as defined in the 2010 AOC.

WHEREAS, the work under the 2010 AOC is ongoing in a phased manner generally moving from upstream to downstream and is divided into Operable Units 1 and 2. Work has commenced in Operable Unit 1 in and along the Tittabawassee River. Operable Unit 1 is divided in eight Segments that were defined in accordance with the 2010 AOC Scope of Work. The first seven Segments in Operable Unit 1 encompass the Tittabawassee River and its banks and floodplains. The eighth Segment consists of the Saginaw River from the Tittabawassee River downstream to the 6th Street turning basin in the City of Saginaw. In addition to the 2010 AOC, work in each of the Segments is also being conducted, or may be conducted, under other AOCs issued by EPA.

WHEREAS, as of the date of this Consent Decree, Dow has completed initial removal actions in Segments 1, 2, and 3. EPA has selected removal actions for Segments 4, 5, 6, and 7, and work in Segments 4, 5 and 6 is currently being implemented.



WHEREAS, under the 2010 AOC and subsequent AOCs issued by EPA, Dow has been and is currently conducting investigation and cleanup of dioxin contamination in and along the Tittabawassee River by removing and/or stabilizing or capping certain sediment deposits within the river; removing and/or stabilizing certain river banks containing high levels of dioxin; monitoring river banks for future action, if necessary, that are currently stable but that contain high levels of dioxin that may require removal and/or stabilization in the future; removing and replacing certain floodplain soils that exceed site-specific cleanup criteria for the protection of human health; and conducting monitoring and maintenance.

WHEREAS, except for a removal action to address a limited area of contamination detected in the Saginaw River in 2007, EPA has not yet made a determination about the need for or scope of response actions that may be required to address areas in and/or along the Saginaw River or Saginaw Bay that may have been affected by releases or threatened releases of hazardous substances at or from the Midland Facility.

WHEREAS, after initial completion of cleanup work in and along the Tittabawassee River, in accordance with the 2010 AOC, Dow will conduct an investigation in and along the Saginaw River portion of Operable Unit 1 and Operable Unit 2, which includes the remainder of the Saginaw River, floodplain, and certain portions of Saginaw Bay, and the results of that investigation may

support a future determination by EPA regarding the need for additional response actions in the Saginaw River or Saginaw Bay.

WHEREAS, EPA has not yet selected removal actions for Segment 8 of Operable Unit 1 or for Operable Unit 2.

WHEREAS, Dow is required to conduct a “post construction” residual risk assessment(s) as identified in the 2010 AOC Scope of Work to determine if additional cleanup work needs to be conducted in addition to work that has been currently completed or planned to achieve remedial goals. The “post construction” residual risk assessment(s) could result in determinations that additional response actions are needed at the Site as defined in the 2010 AOC.

WHEREAS, by entering into this Consent Decree, Dow does not admit any liability to the United States, the State, or the Tribe arising out of the transactions or occurrences alleged in the Complaint filed in this action, nor does the United States, on behalf of Settling Federal Agencies, admit any liability to Dow, the State, the Federal Trustee, or the Tribe arising out of the transactions or occurrences alleged in the Complaint filed in this action.

WHEREAS, the United States’ entry into this Consent Decree on behalf of Settling Federal Agencies, including its agreement to make payments to Dow in satisfaction of Dow’s claims against the United States in connection with Natural Resource Restoration Projects, its reimbursement of Natural Resource Damage

Assessment Costs, or costs Dow incurs in connection with past or future removal actions or remedial actions in response to releases of hazardous substances or discharges of oil at or from the Midland Facility, shall not constitute or be considered a waiver of federal sovereign immunity, or an admission of such a waiver.

WHEREAS, Dow contends that the United States is liable in contribution for a portion of the costs Dow has incurred in Dow's performance of removal actions in Segments 1, 2, 3, 4 and 5; for costs Dow has incurred and will incur to complete cleanup work in and along the Tittabawassee River, in accordance with the 2010 AOC; for the costs of response actions Dow may incur in and or along the Saginaw River portion of Operable Unit 1 and Operable Unit 2; and for a portion of any natural resource damages resulting from releases or threatened releases of hazardous substances or discharges of oil at or from the Midland Facility or from other activities of the United States within the Assessment Area or affecting natural resources within the Assessment Area.

WHEREAS, 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 will avoid litigation of complex issues and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, without the adjudication or admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue) and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

## **I JURISDICTION AND VENUE**

1. This Court has jurisdiction over the subject matter of this action pursuant to Section 113(b) of CERCLA, 42 U.S.C. § 9613(b), and 28 U.S.C. §§ 1331 and 1345, and over the Parties for the purpose of entry and enforcement of this Consent Decree. This Court has supplemental jurisdiction over the state law claims asserted against Dow pursuant to 28 U.S.C. § 1367(a). Venue lies in the Eastern District of Michigan pursuant to 42 U.S.C. § 9613(b) and 28 U.S.C. § 1391. Solely for the purposes of this Consent Decree or any action to enforce this Consent Decree, the Parties waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. None of the Parties shall challenge this Court's jurisdiction to enter and enforce this Consent Decree. Solely for the purposes of this Consent Decree, Dow admits that the Complaint in this action states claims against Dow for which relief may be granted under CERCLA and state law.

## **II APPLICABILITY**

2. The obligations of this Consent Decree apply to and are binding upon the Parties and each of their successors, assigns, or other entities or persons otherwise bound by law to comply with this Consent Decree. In any action to enforce this Consent Decree, Dow shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree; nor shall Dow contest the right of any of the Trustees to enforce the provisions of this Consent Decree.

3. No transfer or change of ownership or operation of Dow, including, but not limited to, any transfer of assets or real or personal property, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Dow of its obligation to ensure that the terms of this Consent Decree are implemented; nor shall any change in corporate status alter the rights and responsibilities of Dow and its successors and assigns under this Consent Decree. In addition, any transfer of any real property where Dow is required to implement a Natural Resource Restoration Project under this Consent Decree shall be conditioned on the transferee having first executed an agreement with the Trustees that grants to the Trustees and their representatives an irrevocable right of access for the purpose of monitoring and/or maintaining the Natural Resource Restoration Projects that may

be undertaken by the Trustees during a 25-year period after the conclusion of Dow's Monitoring and Maintenance responsibilities under the applicable Statement of Work relating to such property.

a. At least thirty (30) Days prior to any transfer of Dow's interest in (i) the Midland Facility or (ii) any real property where Dow is required to implement Natural Resource Restoration Projects under this Consent Decree, Dow shall provide a copy of this Consent Decree to the proposed transferee. At least thirty (30) Days prior to any such transfer Dow shall also provide written notice of the prospective transfer, identifying the transferee(s) assuming ownership or responsibility of any and all such transferred assets, to each of the Trustees, the United States Attorney for the Eastern District of Michigan, and the United States Department of Justice, in accordance with Section XXIII (Notices).

Notwithstanding any transfer of Dow's interest in (i) the Midland Facility or (ii) any real property where Dow is required to implement Natural Resource Restoration Projects under this Consent Decree, Dow shall remain liable to Plaintiffs for performance of all Restoration Projects and other requirements under this Consent Decree.

b. Dow shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Consent Decree, as well as to any contractor retained to perform

work required under this Consent Decree. Dow shall condition any contract to perform work required under this Consent Decree upon performance of the work in conformity with the terms of 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 Dow within the meaning of Section 107(b) of CERCLA, 42 U.S.C. § 9607(b)(3).

### **III DEFINITIONS**

4. Unless otherwise expressly provided herein, terms used in this Consent Decree which are defined in CERCLA or in the regulations promulgated thereunder shall have the meaning assigned to them in CERCLA or in such regulations, as applicable. Whenever the following terms are used in this Consent Decree or in the Appendices attached hereto and incorporated hereunder, the definition specified hereinafter shall apply.

a. “Assessment Area” shall consist of: (1) all Segments of the Tittabawassee River directly adjacent to the Midland Facility and all Segments of the Tittabawassee River downstream from the Midland Facility to the confluence of the Tittabawassee River and the Shiawassee River; (2) the 100-year floodplain of the Tittabawassee River Segments referred to above; (3) the Saginaw River, from the confluence of the Tittabawassee River and the Shiawassee River to the mouth of the Saginaw River at Saginaw Bay; (4) the 100-year floodplain of the Saginaw

River; (5) Saginaw Bay extending from the mouth of the Saginaw River to an imaginary line drawn between Au Gres and Sand Point; (6) the Midland Facility as depicted in Appendix A; and (7) the aerial deposition zone as depicted in the Restoration Plan.

b. “BIA” shall mean the Bureau of Indian Affairs, an agency of DOI and any of its successor departments or agencies.

c. “CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. § 9601 *et seq.*

d. “Complaint” shall mean the complaint filed by the United States, the State, and the Tribe in this action.

e. “Consent Decree” shall mean this Consent Decree and Appendices attached hereto, as well as all plans, reports, or other items or deliverables approved by the Trustees pursuant to this Consent Decree. In the event of a conflict between this Consent Decree and any Appendix or any approved plan, report, or other item or deliverable, this Consent Decree shall control.

f. “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.



g. “Double Recovery” shall mean (1) any Third-Party Reimbursement of any of the money being paid by the United States pursuant to this Consent Decree, and/or (2) any compensation of any kind for costs incurred or to be incurred by Dow in connection with, or Natural Resource Damages resulting from, any release or threatened release of a hazardous substance or any discharge of oil at or from the Midland Facility (other than the money being paid pursuant to this Consent Decree), paid by the United States to Dow or “Affiliated Contractors,” as defined in Subparagraph 38.g, including, but not limited to, direct payments, Federal Contract payments or credits, and the compromise of any claims, causes of action, suits, or demands of any kind whatsoever in law or in equity for such response costs or Natural Resource Damages, whether asserted against the United States or other persons or entities.

h. “Dow” shall mean The Dow Chemical Company and its successors and assigns.

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

j. “Effective Date” shall have the definition provided in Section XXIV (Effective Date).

k. “EGLE” shall mean the Michigan Department of Environment, Great Lakes, and Energy (formerly known as the Michigan Department of Environmental Quality or MDEQ), and any successor department or agency.

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

m. “Federal Contract” shall mean any prime contract, subcontract, or any other agreement transferring value between Dow and a department, agency, or instrumentality of the United States, including but not limited to contracts for goods or services, grants, and cooperative agreements, regardless of whether Dow is a prime contractor or subcontractor.

n. “Federal Trustee” shall mean the Secretary of the Interior, acting through the USFWS and the BIA, and any of their respective successors.

o. “Interest,” as that term is used in this Consent Decree, shall mean interest earned at the rate and by the method specified in 28 U.S.C. § 1961(a) and (b).

p. “Lead Administrative Trustee” shall mean the USFWS or, following written notification by the Trustees to Dow, any other entity that the Trustees in the future designate to serve as Lead Administrative Trustee.

q. “MDNR” shall mean the Michigan Department of Natural Resources and any successor department or agency.

r. “Midland Facility” shall mean for purposes of this Consent Decree the facility and property owned and operated by Dow as of December 31, 2018, as depicted on the map attached as Appendix A.

s. “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.

t. “Natural Resource” or “Natural Resources” shall mean land, fish, wildlife, biota, air, water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States, the State, or the Tribe.

u. “Natural Resource Damages” shall mean any damages recoverable by the United States, the State, or the Tribe on behalf of the public, pursuant to Sections 107(a)(4)(C) and 107(f) of CERCLA, 42 U.S.C. §§ 9607(a)(4)(C) and 9607(f), Section 311(f)(4) or (5) of the Clean Water Act, as amended, 33 U.S.C. § 1321(f)(4) or (5), Section 1002(b)(2)(A) of the Oil Pollution Act, as amended, 33 U.S.C. § 2702(b)(2)(A), State Natural Resource Damage Law, or any other federal, state, or local law or regulation or common law, for injury to, destruction of, loss of, loss of use or non-use of, or impairment of Natural Resources, including any services such Natural Resources provide, resulting from

the release or threatened release of hazardous substances, or from the discharge of oil, or resulting from response actions undertaken to address such releases, threats of releases or discharges. Natural Resource Damages include, without limitation: (i) Natural Resource Damage Assessment Costs; (ii) the costs of restoration, rehabilitation, or replacement of injured or lost Natural Resources and the services they provide, or of acquisition of equivalent resources (including costs of Natural Resource Restoration Projects); (iii) the costs of planning and monitoring such restoration activities; (iv) any other compensation for injury, destruction, loss, impairment, diminution in value, loss, or loss of use or non-use of Natural Resources and/or the services they provide; and (vi) each of the categories of recoverable damages described in 43 C.F.R. § 11.15 and applicable State Natural Resource Damage law.

v. “Natural Resource Damage Assessment Costs” shall mean, for purposes of this Consent Decree, all costs, including, but not limited to, direct, indirect, and administrative costs, incurred by the Trustees in assessing the alleged injury to, destruction of, loss of, or loss of use of Natural Resources resulting from releases of hazardous substances or discharges of oil at or from Dow’s Midland Facility, and all costs incurred by the Trustees directly or indirectly related to negotiating this Consent Decree.

w. “Natural Resource Restoration Projects” shall mean, for purposes of this Consent Decree, each of the projects referred to in Section V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources and Lost Natural Resource Services), including the projects described in Appendices B–G, and all applicable requirements and Performance Standards set forth in such Appendices; the Tittabawassee River Green Corridor Project referred to in Paragraph 7.b and Appendix I; the Shiawassee National Wildlife Refuge Expansion Project described in Paragraph 10; and each of the projects described in Appendices J–N, as well as the following activities undertaken prior to the Effective Date of this Consent Decree: (i) the funding and acquisition of the former Germania Town and Country Club, (ii) the funding and acquisition of the former Bourdow and Kohl properties, and (iii) the acquisition of various conservation easements within the eight-year floodplain of the Tittabawassee River, as described at pp. 3-4, above.

x. “NRDAR Fund” shall mean DOI’s Natural Resource Damage Assessment and Restoration Fund established pursuant to 43 U.S.C. §§1474b and 1474b-1. This fund’s Treasury account symbol (“TAS”) is 14X5198.

y. “Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral.

z. “Parties” shall mean, for purposes of this Consent Decree, the United States on behalf of the Federal Trustee and the Settling Federal Agencies; the State; the Tribe; and Dow.

aa. “Performance Standards” shall mean the performance standards set forth in the applicable Statement of Work for each Natural Resource Restoration Project described in Appendices B–G.

bb. “Plaintiffs” shall mean the United States, on behalf of the Federal Trustee; the State; and the Tribe.

cc. “Restoration Account” shall mean a separate account that DOI has established within the NRDAR Fund, identified as NRDA project number 0463 - Restoration. Expenditures from this Restoration Account shall be subject to approval of the Trustees.

dd. “Restoration Plan” shall mean the final Restoration Plan/Environmental Assessment for the Tittabawassee River System Natural Resource Damage Assessment adopted by the Trustees, following public notice and comment, and any amendments thereto.

ee. “Section” shall mean a portion of this Decree identified by a capitalized Roman numeral.

ff. “Settling Federal Agencies” shall mean the U.S. Department of Commerce, the General Services Administration, and the U.S. Department of

Defense and their respective departments, agencies and instrumentalities, including (but not limited to) the U.S. Department of the Navy, the U.S. Department of the Army (including the U.S. Army Corps of Engineers), and the U.S. Department of the Air Force.

gg. “State” shall mean the State of Michigan, and each department, agency, and instrumentality of the State of Michigan, including MDNR, EGLE, MDEQ, and the Michigan Attorney General.

hh. “State Trustees” shall mean MDNR, EGLE, and the Michigan Attorney General and any of their respective successors.

ii. “State Natural Resource Damage Law” shall mean, for purposes of this Consent Decree, the authorities granted to the State to assess and recover damages for injury to, destruction of, or loss of natural resources, including costs of assessment, set forth at Sections 3115(2) and 20126a of the NREPA, MCL 324.3115(2) and 324.20126a.

jj. “Subparagraph” shall mean a portion of this Consent Decree identified by a lower case letter or an Arabic numeral in parentheses.

kk. “Third-Party Reimbursement” shall mean any payment of, or consideration for, response costs or Natural Resource Damages that Dow or an “Affiliated Contractor,” as defined in Subparagraph 38.g, receives from any person or entity other than the United States, including but not limited to direct payments,

insurance or contract recoveries, the discharge of any debt or obligation, or the satisfaction of any claims, causes of action, suits, or demands of any kind whatsoever in law or in equity.

ll. “Tribal Trustee” shall mean the Saginaw Chippewa Indian Tribe of Michigan, and its successors.

mm. “Tribe” shall mean the Saginaw Chippewa Indian Tribe of Michigan and each department, agency, and instrumentality of the Saginaw Chippewa Indian Tribe of Michigan.

nn. “Trustees” shall mean the Federal Trustee, the State Trustees, and the Tribal Trustee, and any of their respective successors.

oo. “United States” shall mean the United States of America, and each department, agency, or instrumentality of the United States, including the DOI, the USFWS, the BIA, and the Settling Federal Agencies.

pp. “USFWS” shall mean the United States Fish and Wildlife Service.

#### **IV OBJECTIVES**

5. The mutual objectives of the Parties in entering into this Consent Decree are: (i) to provide for restoration, rehabilitation, replacement, or acquisition of the equivalent of the Natural Resources allegedly injured, destroyed, or lost as a result of releases of hazardous substances or discharges of oil at or from the



Midland Facility and subsequent response actions to address such releases, including restoration, rehabilitation, or replacement of lost natural resource services, consistent with a Restoration Plan approved by the Trustees following public notice and an opportunity for comment; (ii) to provide for payment of unreimbursed Natural Resource Damage Assessment Costs incurred by the Trustees; (iii) to resolve liability of Dow and the Settling Federal Agencies for alleged Natural Resource Damages as provided herein; (iv) to resolve Dow's contribution claims against the Settling Federal Agencies for Natural Resource Damages, as well as Dow's claims against Settling Federal Agencies, whether in contribution or otherwise, for costs incurred or to be incurred by Dow in connection with any removal or remedial actions in response to any release or threatened release of hazardous substances, or any discharge of oil, at or from the Midland Facility, as provided herein; and (v) to avoid potentially costly and time-consuming litigation.

6. The Parties recognize that the final Restoration Plan will be adopted, following a public notice and comment process, after this Consent Decree is lodged with the Court as provided in Paragraph 106.

**V PROJECTS TO RESTORE, REHABILITATE, OR REPLACE  
INJURED NATURAL RESOURCES AND LOST NATURAL RESOURCE  
SERVICES**

7. Dow-Implemented Restoration Projects.

a. Dow shall implement each of the Natural Resource Restoration Projects as set forth in the Statements of Work (“SOWs”) attached hereto as Appendices B–G. Dow shall implement each such Natural Resource Restoration Project in accordance with all requirements of this Consent Decree, including: (a) all requirements set forth in, or established pursuant to, the SOW applicable to the implementation of the particular project, including implementation of any required contingency measures, monitoring and maintenance requirements applicable to the project, and establishment of conservation easements or other similar instrument establishing land use restrictions as set forth in Appendix H; (b) the time frames specified in Appendix Q (NRD Restoration Project Schedules) attached to this Consent Decree, including any modifications of such schedule in accordance with this Consent Decree, as well as any schedules approved by the Trustees in accordance with provisions of the applicable SOW for the particular project; and (c) all provisions of work plans or other plans or submittals approved by the Trustees in accordance with the provisions of the SOW for the particular project. Subject to the requirements of Paragraph 3, Dow may transfer ownership of any property used for a Natural Resource Restoration Project referred to in this

Subparagraph 7.a, provided, however, that no such transfer shall affect Dow's obligations with respect to the transferred property under the applicable SOW.

b. Tittabawassee River Green Corridor Natural Resource Restoration Project.

i. Dow certifies that as of July 12, 2018, it had acquired easements and property use restrictions consistent with the requirements described in Section C of Appendix I on 1,795 acres of property within the eight year floodplain of the Tittabawassee River. Dow shall use best efforts to acquire easements and property use restrictions on an additional 205 acres of land within the eight-year floodplain of the Tittabawassee River within 48 months after the Effective Date, in accordance with the requirements set forth in Appendix I.

ii. Dow shall maintain detailed information pertaining to each property that is subject to easements and property use restrictions referred to in Subparagraph 7.b.i, above. Consistent with the terms of Appendix I, Dow shall, upon request from the Trustees, provide the Trustees with information that may be necessary to inspect any such property to determine compliance with the easements and property use restrictions.

iii. To the extent that Dow is unable to complete acquisition of easements and property use restrictions on an additional 205 acres within

the eight-year floodplain of the Tittabawassee River, as provided in Subparagraph 7.b.i, above, Dow shall submit to the Trustees for review and approval a proposal for one or more alternative restoration projects, consistent with the requirements specified in Appendix I. Following approval by the Trustees of any such alternative restoration project, Dow shall implement each approved alternative restoration project in accordance with the terms and schedules approved by the Trustees.

c. In addition, Dow shall implement the Shiawassee National Wildlife Refuge Expansion Project set forth in Paragraph 10.

8. Performance Standards. Dow shall meet Performance Standards for each Natural Resource Restoration Project identified in Appendices B–G as provided in the applicable Statement of Work for the respective project. If Dow is unable to meet any Performance Standard applicable to any Natural Resource Restoration Project identified in Appendices B–G, Dow shall undertake contingency measures, in accordance with requirements set forth in the applicable SOW for the respective project.

9. Certificate of Project Completion. For each Natural Resource Restoration Project referred to in Paragraph 7, above, Dow shall prepare and submit to the Trustees a Project Completion Report within one hundred and twenty (120) Days after all of the following: (a) Dow has completed all construction activities

and submitted a Construction Completion Report; (b) Dow has achieved all Performance Standards applicable to the project; (c) Dow has completed all project monitoring requirements in accordance with the applicable SOW; and (d) Dow has submitted all Maintenance and Monitoring Reports required under the applicable SOW. In addition, notice of any Project Completion Report submitted to the Trustees under this Paragraph shall also be submitted to the United States, on behalf of the Settling Federal Agencies, at the address for the U.S. Department of Justice, Chief, Environmental Defense Section, specified in Section XXIII (Notices). Each Project Completion Report shall include all necessary information and documentation demonstrating that the project (a) was built in accordance with the plans and any applicable contingency measures approved by the Trustees, (b) meets all applicable Performance Standards, and (c) satisfies any additional project requirements, including any permitting requirements and the securing of any conservation easements required pursuant to the applicable SOW and Appendix H. The Trustees shall evaluate each Project Completion Report and the results of any inspection they may undertake. If the Trustees determine, based on their evaluation of the Project Completion Report for any Natural Resource Restoration Project and any inspection of such Natural Resource Restoration Project undertaken by the Trustees, that Dow has completed all requirements of such Natural Resource Restoration Project, including all applicable Performance Standards, then the

Trustees shall issue a Certification of Project Completion to Dow for the project in accordance with the terms of this Consent Decree. If, after evaluating any Project Completion Report submitted by Dow with respect to a Natural Resource Restoration Project referred to in Paragraph 7, above, and considering the results of any inspection by the Trustees of such Natural Resource Restoration Project, the Trustees do not agree that Dow has completed such Natural Resource Restoration Project in accordance with the requirements of this Consent Decree, the Trustees will arrange a meeting with Dow to discuss any additional steps needed to meet the completion criteria.

10. Shiawassee National Wildlife Refuge Expansion.

a. Dow shall establish an interest-bearing trust account, referred to herein as the “Shiawassee Trust Account,” that shall be managed by a third party agreed to in writing by Dow and the Trustees. The Shiawassee Trust Account shall hold and manage all funds received from Dow pursuant to this Paragraph 10 for the benefit of the Trustees.

b. Within thirty (30) Days of the Effective Date of this Consent Decree, Dow shall pay to the Shiawassee Trust Account the sum of \$1.2 million, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment. Except as provided in Subparagraph 10.e, below, the Shiawassee Trust Account may disburse funds solely to cover the purchase price, exclusive of

transaction costs, of properties acquired in accordance with Subparagraphs 10.c and 10.d, below. Dow shall bear all transaction costs, beyond the approved purchase price, for any acquisition under this Paragraph 10. Nothing in this Paragraph 10 shall be construed to require Dow to purchase property for expansion of the Shiawassee National Wildlife Refuge except with funds disbursed from the Shiawassee Trust Account, and nothing in this Paragraph 10 shall be construed to require Dow to make additional payments to the Shiawassee Trust Account.

c. For a period of not less than five years after the date of entry, Dow shall use best efforts, consistent with the requirements of this Paragraph 10, to identify and acquire properties that are deemed suitable by the Trustees for natural resource restoration purposes and acceptable to the USFWS to become part of the Shiawassee National Wildlife Refuge that is managed by the USFWS. For purposes of this Subparagraph 10.c, best efforts shall include Dow providing to the Trustees a written report (to be submitted every two months) that describes its efforts to identify suitable properties and its efforts to negotiate acquisition of properties that the Trustees agreed were potentially suitable, including a description of terms rejected by sellers and counteroffers proposed by sellers.

d. Procedure for Acquisition of Property

i. Whenever Dow has identified a potentially suitable property, Dow shall promptly notify the Trustees in writing and provide a

description of such property, which description shall include the size, location, use, and asking price. Where practicable, within thirty (30) Days after receipt of a notice pursuant to this Subparagraph 10.d.i, the Trustees shall notify Dow in writing of their preliminary determination whether the property described in the notice is potentially suitable for acquisition. If the Trustees agree in writing that such property is potentially suitable, Dow shall commence negotiations with the seller to purchase the property. Any agreement for purchase of the property shall be subject to completion by Dow of an All Appropriate Inquiry (“AAI”) Phase I Environmental Site Assessment (as described in ASTM Practice E 1527-13).

ii. If Dow and the seller reach agreement on the terms of a sale of the property, Dow shall promptly notify the Trustees of material terms of the proposed sale, including the final negotiated sales price, and provide the Trustees with the results of the AAI Phase I Environmental Site Assessment of the property. Where practicable, the Trustees shall notify Dow in writing of their determination whether the property is still suitable for purchase at the final price negotiated between Dow and the seller within thirty (30) Days after receipt of any such notice. Nothing in this Subparagraph shall be construed to require the Trustees to make a determination regarding suitability for any property before they have



inspected the property. The time period for notifying Dow regarding the Trustees' determination of suitability of the property shall be extended if seasonal conditions or other factors limit the ability of the Trustees to perform an adequate inspection of the property within the 30-Day period.

iii. No later than thirty (30) Days after receiving notification from the Trustees under Subparagraph 10.d.ii that a property is suitable for acquisition at the negotiated sales price, Dow shall submit the following to the Trustees for approval:

(a) A draft general warranty deed or deeds providing for conveyance of the property to the United States and its assigns, with DOI, USFWS as the acquiring federal agency. The property shall be conveyed in fee simple, free and clear of liens and other encumbrances (except for encumbrances acceptable to the Trustees), enforceable under the laws of the State, and otherwise acceptable under the Regulations of the Attorney General Governing the Review and Approval of Title for Federal Land Acquisitions (2016) (the "Attorney General's Title Regulations (2016)") promulgated pursuant to 40 U.S.C. § 3111. Dow shall be responsible for curing and removing, or causing to be cured and removed, any unacceptable liens and encumbrances;

(b) A current title insurance commitment or report prepared in accordance with the Attorney General's Title Regulations (2016); and

(c) A survey in accordance with the Attorney General's Title Regulations (2016) and USFWS Policy 343 FW 1-2 that is approved by a USFWS Regional Land Surveyor.

iv. Following the Trustees' approval of the items referred to in Subparagraphs 10.d.iii.(a)-(c), above, with respect to any property, the Shiawassee Trust Account shall disburse to Dow the full amount of the negotiated sales price reviewed and approved by the Trustees for such property, and Dow shall complete acquisition of the Property within sixty (60) Days after the Trustees' approval of the items referred to in Subparagraphs 10.d.iii.(a)-(c), above. Within thirty (30) Days following acquisition of the property, Dow shall: (i) transfer, or cause to be transferred, a general warranty deed in fee simple for such property; and (ii) execute and deliver to the USFWS the approved deed for such property along with a final title evidence policy(ies) on the American Land Title Association ("ALTA") U.S. Policy 9/28/91 (Revised 12/3/12) form with United States of America and its assigns as the insured. Dow shall ensure that the deed is properly recorded. Within thirty (30) Days following a request by the

Trustees, Dow shall cause the title searches and/or title commitments for the property to be updated. The transfer shall be carried out in accordance with, and the general warranty deed and title evidence (including final title policy on the ALTA U.S. Policy 9/28/91 (Revised 12/3/12)) form shall be prepared in accordance with, the Attorney General's Title Regulations (2016), and approval of the sufficiency of title must be obtained as required by 40 U.S.C. § 3111.

e. On the fifth year anniversary of the date of entry of this Consent Decree, Dow shall submit to the Trustees a report indicating the total number of acres of property acquired by Dow pursuant to this Paragraph 10, the amount of funds remaining in the Shiawassee Trust Account, and the amount of any pending sales transactions that have not yet been concluded and paid with a disbursement of funds from the Shiawassee Trust Account. Unless Dow and the Trustees extend the period for completing acquisition of suitable properties under this Paragraph 10 by mutual agreement, the Shiawassee Trust Account shall be dissolved as expeditiously as practicable upon completing any disbursements due for any transactions pending completed as of the fifth year anniversary of the date of entry of this Consent Decree, at which time any remaining funds in the Shiawassee Trust Account shall be paid to the Restoration Account.

f. Within thirty (30) Days after dissolution of the Shiawassee Trust Account, Dow shall pay an additional amount to the Restoration Account, as specified below in this Subparagraph 10.f unless the total acreage purchased by Dow with the funds from the Shiawassee Trust Account exceeds 200 acres.

**Amount Remaining In Shiawassee Trust  
Account At Dissolution**

**Dow Payment to Restoration**

Less than \$25,000	\$0 (No Payment Required)
\$25,000 – \$100,000	\$61,900
\$100,000 – \$400,000	\$123,800
More than \$400,000	\$185,700

g. Monies paid to the Restoration Account pursuant to Subparagraphs 10.e and 10.f may be used by the Trustees to purchase property suitable for inclusion as part of the Shiawassee National Wildlife Refuge, to reimburse transactions costs incurred by the Trustees in connection with any such property acquisition, or for any other purpose consistent with Section VII (Restoration Account) of this Consent Decree.

h. Dow shall make payments required by this Paragraph 10 to the Restoration Account in accordance with instructions provided by DOI. A copy of the paperwork documenting the payment and any accompanying correspondence shall be sent by Dow to the persons listed in Section XXIII (Notices) of this Consent Decree for notices to the United States and the Trustees, as well as to:

Natural Resource Damage Assessment and Restoration Program  
Attn: Restoration Fund Manager  
Mail Stop 3548  
1849 C Street, N.W.  
Washington, D.C. 20240

Notices shall reference the DOJ Case Number 90-11-3-08953, indicate that the payment relates to the “Tittabawassee River, MI, Project 0463”, and identify Dow as the paying responsible party.

11. Funding for Specific Restoration Projects.

a. Within thirty (30) Days of the Effective Date of this Consent Decree, Dow shall pay to the United States, as provided in Subparagraph 11.b, below, the sum of \$6,750,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, to fund the Natural Resource Restoration Projects described more particularly in Appendices J–N attached hereto. Other than making the payment set forth above in this Subparagraph, Dow shall have no obligations with regard to any of the projects described in Appendices J–N.

b. The payment required pursuant to Subparagraph 11.a, above, shall be paid to the United States by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice account, in accordance with current EFT procedures, referencing DOJ Case Number 90-11-3-08953. The payment shall be

deposited in the Restoration Account for the joint use and benefit of the Federal, State, and Tribal Trustees.

c. Of the total amount paid to the Restoration Account pursuant to Subparagraph 11.a, the Trustees shall disburse funds as follows, with any funds not needed for these projects to be used consistent with Section VII (Restoration Account):

i. up to \$3,250,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, will be disbursed by the Trustees for approved expenditures of the USFWS to restore and enhance habitat in specified areas of the Shiawassee National Wildlife Refuge, as described in Appendix J;

ii. \$1,000,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, will be disbursed by the Trustees for approved expenditures of the Thomas Township to implement the Thomas Township Nature Preserve Restoration Project, as described in Appendix K;

iii. \$1,000,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, will be disbursed by the Trustees for approved expenditures of MDNR to implement the Saginaw Riverfront Park Restoration Project as described in Appendix L;

iv. up to \$1,000,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, will be disbursed by the Trustees for approved expenditures to implement a Saginaw Bay Fish Spawning Reef Project described in Appendix M; and

v. up to \$500,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, will be disbursed by the Trustees for approved expenditures of the Tribe to restore and enhance habitat with cultural uses and values, as described in Appendix N.

12. Except for the conservation easements as provided in Appendix I for the Tittabawassee River Green Corridor Restoration Project, Dow shall ensure that any conservation easements or other similar instruments establishing land use restrictions required pursuant to this Consent Decree incorporate the terms and restrictions set forth in Appendix H and shall be enforceable by all Trustees.

## **VI PAYMENTS FOR ADDITIONAL NATURAL RESOURCE RESTORATION PROJECTS**

13. Payments to Fund Additional Restoration Projects, Future Restoration Planning, Future Monitoring and Maintenance of Restoration Projects, and Oversight Costs.

a. Within thirty (30) Days of the Effective Date of this Consent Decree, Dow shall pay \$15,000,000, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, to the United States by FedWire EFT to the U.S. Department of Justice account, in accordance with current EFT procedures, referencing DOJ Case Number 90-11-3-08953.

b. The payment required pursuant to Subparagraph 13.a, above, shall be deposited in the Restoration Account for the joint use and benefit of the Federal, State, and Tribal Trustees.

## **VII RESTORATION ACCOUNT**

14. DOI shall manage and invest funds in the Restoration Account, including any accrued interest or return on investment, for the joint benefit and use of the Federal, State, and Tribal Trustees. DOI shall not make any charge against the Restoration Account for investment, management, or any other services provided with respect to operation of the Restoration Account.

15. All expenditures of funds in the Restoration Account shall be subject to approval of the Trustees pursuant to the Trustee Memorandum of Understanding dated February 9, 2006, or any amendment to the Memorandum of Understanding agreed to by the Trustees. Funds in the Restoration Account shall be used for Trustee-approved restoration activities consistent with this Consent Decree and the Restoration Plan, designed to restore, rehabilitate, replace, or acquire the equivalent



of, Natural Resources and natural resources services alleged to have been injured, lost, or destroyed as a result of the releases of hazardous substances or discharges of oil at or from the Midland Facility. Such Trustee-approved restoration activities may include restoration planning, implementation, and oversight of restoration projects, operation and maintenance of restoration projects, and monitoring of Natural Resources. Dow shall not be entitled to dispute in this or any other forum or proceeding, any decision of the Trustees relating to use of Restoration Account funds or restoration activities implemented by the Trustees with such funds.

16. Restoration Activities Funded By Restoration Account.

a. The Trustees will use monies in the Restoration Account consistent with the Restoration Plan, which will include restoration criteria stating that restoration activities must benefit Natural Resources alleged to have been injured and further stating that, among other ranking criteria, projects within or adjacent to the Assessment Area are preferred. The Trustees will use some of the funds in the Restoration Account to provide for monitoring and maintenance of Natural Resource Restoration Projects identified in Appendices B–G after Dow’s obligations at these projects end and for monitoring and maintenance of Natural Resource Restoration Projects identified in Appendices J through N following the initial construction of those projects. The Trustees shall spend at least \$5 million in funds in the Restoration Account to fund additional Natural Resource Restoration

Projects that will be selected and announced by the Trustees, consistent with the Restoration Plan, following entry of this Consent Decree.

b. Community-Based Restoration Projects. Prior to selecting additional Natural Resource Restoration Projects to be funded with monies from the Restoration Account, the Trustees shall solicit proposals from the public for Natural Resource Restoration Projects that are consistent with the Restoration Plan. Such proposals may include proposals from local, state, federal, or tribal units of government, tribes and inter-tribal consortia, nonprofit organizations, and other persons or entities.

c. The Trustees shall have sole authority to approve proposals for Natural Resource Restoration Projects submitted by the public as well as sole authority to approve disbursements, including disbursements for any public proposals approved by the Trustees. This Consent Decree grants Dow no authority to monitor implementation of any natural resource restoration activities that are undertaken pursuant to this Consent Decree by the Trustees or by any persons or entities, including non-profit organizations, or others that receive monies pursuant to grants, cooperative agreements, contracts, or other funding mechanisms entered into with the Trustees. Dow shall have no obligations with respect to any natural resource restoration activities conducted by the Trustees with monies from the Restoration Account or conducted by any other person or entity with grants,

cooperative agreements, contracts, or other funding mechanisms entered into with the Trustees.

17. Except as expressly provided in this Paragraph, apart from making the payment set forth in Subparagraph 13.a, above, Dow shall have no obligations with regard to implementation of any Natural Resource Restoration Project funded with such monies. If the funds in the Restoration Account are not sufficient to complete Trustee-implemented or Trustee-funded restoration activities in the Restoration Plan, then neither Dow nor the Trustees shall be required to expend additional funds to complete such activities. Notwithstanding any expenditure of Restoration Account monies for long-term operation and maintenance of the Dow-implemented restoration projects described in Appendices B–G, nothing in this Paragraph shall be construed to relieve Dow of any obligation under Section V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources and Lost Natural Resource Services) of this Consent Decree to implement such Dow implemented restoration projects in accordance with applicable provisions of Appendices B-G.

### **VIII PAYMENT OF UNREIMBURSED ASSESSMENT COSTS**

18. Federal Trustee. Within thirty (30) Days of the Effective Date of this Consent Decree, Dow shall pay \$756,692.66, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, to the United States by Fedwire EFT to the U.S. Department of Justice account, in accordance with current

EFT procedures, referencing DOJ Case Number 90-11-3-08953 as payment for previously unreimbursed Natural Resource Damage Assessment Costs incurred by USFWS, BIA, or other components of DOI, prior to April 1, 2018.

19. Payments to the United States pursuant to Paragraph 18 shall be made in accordance with instructions provided to Dow by the Financial Litigation Unit (“FLU”) of the United States Attorney’s Office for the Eastern District of Michigan following lodging of this Consent Decree. Any payments received by the United States Department of Justice after 4:00 p.m. (Eastern Time) will be credited on the next business date.

20. The payment instructions provided by the FLU will include a Consolidated Debt Collection System (“CDCS”) number, which Dow shall use to identify all payments required to be made in accordance with this Consent Decree.

21. A copy of the paperwork documenting EFT payments and any accompanying correspondence shall be sent by Dow to the persons listed in Section XXIII (Notices) of this Consent Decree for notices to the Trustees, as well as to:

Natural Resource Damage Assessment and Restoration Program  
Attn: Restoration Fund Manager  
Mail Stop 3548  
1849 C Street, N.W.  
Washington, D.C. 20240

22. Notices shall reference DOJ Case Number 90-11-3-08953, indicate that the payment relates to the “Dow Chemical – Tittabawassee River, MI,” and include the name(s) of the paying responsible party.

23. EGLE. Within thirty (30) Days of the Effective Date of this Consent Decree, Dow shall pay \$10,789.17, plus Interest accruing from the date of lodging of this Consent Decree through the date of payment, to EGLE for payment for Natural Resource Damage Assessment Costs incurred by EGLE from April 22, 2017 through September 23, 2017. These Natural Resource Damage Assessment Costs were incurred and were not reimbursed by Dow, and further are separate and distinct from the State Assessment Costs for which recovery is waived as set forth in Paragraph 24 of this Consent Decree. Payment shall reference Settlement No. RRD-2222 and be sent to:

Michigan Department of Environment, Great Lakes, and Energy  
Cashier's Office  
P.O. Box 30657  
Lansing, MI 48909-8157

Via Courier:  
Accounting Services Division  
Cashier's Office for EGLE  
1<sup>st</sup> Floor Van Wagoner Building  
425 West Ottawa Street  
Lansing, MI 48933-2125

## **IX ADDITIONAL STATE REQUIREMENTS**

24. Dow shall undertake two projects in the Bay City community that the State has determined are valuable to the education of current and future community members and to continuing efforts to enhance public use, enjoyment, and appreciation of natural resources of the Tittabawassee and Saginaw Rivers and Saginaw Bay, as set forth in Appendices O and P. As set forth in greater detail in Appendices O and P to this Consent Decree, Dow will provide real estate and funding to support permanent, publicly-accessible sites for the BaySail Community Education and science education programs, and for the use of the Saginaw River Rear Range Lighthouse, upon completion of its renovation, as a publicly-accessible historic and educational resource. In consideration of Dow's support and protection of these properties for public use in perpetuity, the State is waiving its claims for reimbursement of certain past costs associated with the investigation of releases of hazardous substances at or from the Midland Facility, as described in Appendix R. The obligations set forth in this Paragraph 24 are applicable only to Dow and the State Trustees, and do not include or apply to the Federal Trustee or the Tribal Trustee in any way.

## **X SETTLING FEDERAL AGENCY PAYMENTS TO DOW**

25. As soon as reasonably practicable after the Effective Date, the United States, on behalf of Settling Federal Agencies, shall pay to Dow the sum of

\$21,000,000 in satisfaction of Dow's claims against the United States for recovery of (a) any costs incurred or to be incurred by Dow pursuant to Sections V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources and Lost Natural Resource Services), VI (Payments for Additional Natural Resource Restoration Projects), VIII (Payment of Unreimbursed Assessment Costs), and IX (Additional State Requirements) of this Consent Decree; (b) any costs incurred or to be incurred by Dow in connection with Natural Resource Restoration Projects or reimbursement of Natural Resource Damage Assessment Costs; and (c) any costs, consistent with the NCP, incurred or to be incurred by Dow in connection with any removal actions or remedial actions in response to any release or threatened release of a hazardous substance or any discharge of oil at or from the Midland Facility.

26. Such payment shall be made by Automated Clearing House ("ACH") EFT in accordance with instructions provided by Dow.

a. Interest. In the event that the payment required under Paragraph 25, above, is not made within one hundred and twenty (120) Days after the Effective Date of this Consent Decree, the United States, on behalf of Settling Federal Agencies, shall pay Interest on the unpaid balance, with such Interest commencing on the 121<sup>st</sup> Day after the Effective Date and accruing through the date of payment.

b. The Parties to this Consent Decree recognize and acknowledge that the payment obligations of the Settling Federal Agencies under this Consent Decree can only be paid from appropriated funds legally available for such purpose. Nothing in this Consent Decree shall be interpreted or construed as a commitment or requirement that any Settling Federal Agency obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law.

## **XI REVIEW AND APPROVAL OF DELIVERABLES**

27. After review of any plan, report, or other item that Dow is required to submit to the Trustees for approval under this Consent Decree, including under any SOW attached to this Consent Decree, the Trustees shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions that are consistent with the scope of the work described in the applicable SOW; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission. If the Trustees approve any submission upon specified conditions pursuant to Subparagraph 27(b), Dow shall, within twenty (20) Days after it receives notification of the conditional approval, notify the Trustees whether Dow accepts the conditions specified by the Trustees, in which case such conditions shall be deemed an enforceable part of the approved submission. If Dow does not accept one or more conditions specified by the Trustees in approving a submittal pursuant



to Subparagraph 27(b), the Trustees shall advise Dow in writing whether the relevant plan, report or other item, as submitted by Dow, is approved, approved in part, or disapproved.

28. If the Trustees approve a submission pursuant to Paragraph 27(a), Dow shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is approved only in part pursuant to Paragraph 27(c), Dow shall, upon written direction from the Trustees, take all actions required by the approved plan, report, or other item that the Trustees determine are technically severable from any disapproved portions, subject to Dow's right to dispute only the disapproved portions or the Trustees' severability determination, under Section XV (Dispute Resolution).

29. If Dow's submission is disapproved in whole or in part pursuant to Paragraph 27(c) or (d), Dow shall, within forty-five (45) Days or such other time as the Trustees agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Dow shall proceed in accordance with the preceding Paragraph.

30. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, the Trustees shall provide Dow with an opportunity

to meet within ten (10) Days of such disapproval to discuss the basis for the disapproval. Thereafter, the Trustees may again require Dow to correct any deficiencies, in accordance with the preceding Paragraphs, or may themselves correct any deficiencies subject to Dow's right to invoke dispute resolution in accordance with Section XV (Dispute Resolution) and the right of the Trustees to seek stipulated penalties as provided in Section XIII (Stipulated Penalties).

31. If the Trustees (a) conditionally approve any plan, report, or other item that Dow is required to submit to the Trustees for approval under this Consent Decree or (b) correct any deficiencies in such plan, report, or other item, the Trustees may not impose any conditions or require any actions that materially expand or modify the scope of the project described in the applicable SOW.

32. Any stipulated penalties applicable to the original submission, as provided in Section XIII (Stipulated Penalties), shall accrue during the forty-five (45) Day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Dow's obligations under this Consent Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

33. On or before each anniversary of the Effective Date of this Consent Decree, and continuing until Trustee approval of the final Project Completion Report, the Plaintiffs and Dow shall submit to the Court a joint report (“NRD Annual Report”) that outlines (a) the status of Dow-implemented restoration projects; (b) a list of deliverables currently being developed by Dow and deliverables under review by the Trustees; and (c) the status of Trustee efforts to utilize funds in the Restoration Account.

## **XII INDEMNIFICATION**

34. Plaintiffs do not assume any liability by entering into this Consent Decree or by virtue of any activities to be performed by Dow under this Consent Decree. Dow shall indemnify, defend, and hold harmless Plaintiffs and their officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or causes of actions arising from, or on account of, negligent or other wrongful acts or omissions of Dow, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under their control, in carrying out activities pursuant to this Consent Decree. Further, Dow agrees to pay the Plaintiffs all reasonable 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 Plaintiffs based on negligent or other wrongful acts or omissions of Dow, its officers, directors, employees,

agents, subcontractors, and any persons acting on their behalf or under its control, in carrying out activities pursuant to this Consent Decree. The Plaintiffs shall not be held out as a party to any contract entered into by or on behalf of Dow in carrying out activities pursuant to this Consent Decree. Neither Dow nor any contractor hired by them shall be considered an agent of the United States, the State, or the Tribe. Nothing in this Paragraph shall be construed to require Dow to indemnify Plaintiffs and their officials, agents, employees, contractors, subcontractors, or representatives for or from any claims or causes of action arising from acts or omissions of Plaintiffs and their officials, agents, employees, contractors, subcontractors, or representatives in connection with this Consent Decree, including but not limited to the implementation of the Natural Resource Restoration Projects described in Appendices J, K, L, M, or N.

35. The Plaintiffs shall give Dow notice of any claim for which the Plaintiffs plan to seek indemnification pursuant to this Section and shall consult with Dow prior to settling such claim.

36. Dow waives all claims against the United States, the State, and the Tribe for damages or reimbursement, or for set-off of any payments made or to be made, to the United States, the State, or the Tribe arising from or on account of any contract, agreement, or arrangement between Dow and any person for performance of the Natural Resource Restoration Projects including, but not limited to, claims on

account of construction delays. In addition, Dow shall indemnify and hold harmless the Plaintiffs with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Dow and any person for performance of the Natural Resource Restoration Projects, including, but not limited to, claims on account of construction delays.

37. Dow shall indemnify, hold harmless, and reimburse the United States for any costs related to any claims or causes of action asserted against the United States by any person or entity not a Party to this Consent Decree, with respect to either (i) Natural Resource Damages resulting from any release of a hazardous substance or discharge of oil at or from the Midland Facility, regardless of the date of the release or discharge, or (ii) response costs incurred or to be incurred in connection with any removal or remedial action in response to any release or threatened release of a hazardous substance or discharge of oil at or from the Midland Facility, regardless of the date of the release or discharge; provided, however, that the indemnities set forth herein shall not apply to claims or causes of action for damages under clause (i) or costs under clause (ii) that result from releases or discharges attributable to the activities of the Settling Federal Agencies at the Midland Facility on or after the date of lodging. The United States shall notify Dow in writing of any claim that is asserted or complaint that is filed against

and served upon the United States relating to the Midland Facility as soon as practicable. The United States Department of Justice will represent the United States with regard to any such claims or litigation, and the United States agrees not to settle any such claims or action without first notifying Dow of the United States' intent to settle any such action and providing Dow with a reasonable opportunity to discuss any proposed settlement with the United States.

38. No Double Recovery.

a. Except as set forth in Subparagraph 38.b, below, based upon its knowledge and belief and subject to the penalties of the False Claims Act, 31 U.S.C. § 3729 *et seq.*, and other applicable law, Dow hereby warrants that it has not sought or received, and shall not in the future seek or receive, any Double Recovery.

b. Dow shall not include in any claim, contract charge, reimbursement request, or invoice to the United States any costs that are response costs incurred or to be incurred in connection with, or Natural Resource Damages resulting from, any release or threatened release of hazardous substances or any discharge of oil at or from the Midland Facility for which it has received payment either under this Consent Decree or through Third-Party Reimbursement, whether such a claim or invoice is submitted pursuant to any Federal Contract, or any claim, cause of action, suit, or demand of any kind whatsoever in law or in equity. All

such costs, whether direct or indirect, shall be deemed to be “mutually agreed to be unallowable” costs subject to Federal Acquisition Regulation (“FAR”) 31.201-6, Accounting for Unallowable Costs, and Cost Accounting Standard (“CAS”) 405 (including any subsequent amendments or modifications to FAR 31.201-6 and CAS 405) and thus excluded from any billing, claim, or proposal applicable to any Federal Contracts, including, but not limited to, any final billing, final contract cost proposal, or final overhead rate proposal.

c. Dow shall not claim or receive reimbursement for response costs arising from, or payments for Natural Resource Damages resulting from, any release or threatened release of hazardous substances or any discharge of oil at or from the Midland Facility, regardless of the date of such releases or discharges, pursuant to any indemnification, hold-harmless, or other provision in any Federal Contract.

d. In the event that Dow enters into a Federal Contract, Dow shall comply with CAS 405 (including any subsequent amendments or modifications thereto) when accounting for unallowable costs in any billing, claim, or proposal applicable to any Federal Contract. CAS 405 shall apply even if Dow is not otherwise subject to CAS.

e. In the event that Dow or an “Affiliated Contractor,” as defined in Subparagraph 38.g, enters into a Federal Contract, any costs rendered

unallowable under the terms of this Consent Decree, if included by Dow in any billing, claim or proposal applicable to any Federal Contract and not returned in accordance with Subparagraph 38.g, shall be deemed to be costs that have been “determined to be unallowable” and therefore subject to penalties within the meaning of FAR 42.709-1, clause 52.242-3, and related provisions.

f. In the event that Dow or an “Affiliated Contractor,” as defined in Subparagraph 38.g, enters into a Federal Contract, Dow shall provide a complete copy of this Consent Decree to the administrative contracting officials of the United States with cognizance over Dow’s Federal Contract and to the responsible Dow official or employee with the responsibility for implementing the obligations or requirements of this Consent Decree. Any changes to the titles, duties or responsibilities of these Dow positions will not relieve Dow of the obligations to provide a copy of this Consent Decree to any Dow official or employee with the responsibility of implementing the obligations or requirements of this Consent Decree at any time.

g. In the event that Dow or an “Affiliated Contractor” as defined below in this Subparagraph 38.g receives a Double Recovery, within ninety (90) Days after such receipt, Dow shall repay the United States dollar-for-dollar in the amount of the Double Recovery. Such amount shall accrue interest as described in 26 U.S.C. §§ 6621 and 6622 from the date on which it was received. If a Double



Recovery is received from the United States pursuant to a Federal Contract, Dow shall notify the cognizant Contracting Officer for that Federal Contract in writing within thirty (30) Days after discovery of such receipt, and reimburse the United States by transmitting a sum equal to the amount of the Double Recovery in accordance with written instructions provided by the cognizant Contracting Officer.

For purposes of this Consent Decree, “Affiliated Contactors” shall include any business entity that serves as a subcontractor to Dow on any of Dow’s Federal Contracts, or as a prime contractor for Federal Contracts under which Dow serves as a subcontractor.

### **XIII STIPULATED PENALTIES**

39. Assessment of Stipulated Penalties. Dow shall be liable for stipulated penalties to the United States, the State, and the Tribe for violations of this Consent Decree as specified below unless excused under Section XIV (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Consent Decree, including any work plan or schedule approved under this Consent Decree, according to all applicable requirements of this Consent Decree and within the specified time schedules established by or approved under this Consent Decree.

Stipulated penalties under this Section shall begin to accrue on the day after performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the

violation ceases. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

40. Non-Compliance with Payment Obligations.

a. For each failure to make a payment required under Paragraph 11 (Funding for Specific Restoration Projects) or Paragraph 13 (Payments to Fund Additional Restoration Projects, Future Restoration Planning, Future Monitoring and Maintenance of Restoration Projects, and Oversight Costs) when due, Dow shall pay the following stipulated penalty:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$5,000	1st through 30th Day
\$7,500	31st Day and beyond

b. For each failure to make a payment required under Paragraph 18 (Payment of Unreimbursed Assessment Costs - Federal Trustee) or Paragraph 23 (Payment of Unreimbursed Assessment Costs - EGLE) when due, Dow shall pay the following stipulated penalty:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 500	1st through 15th Day
\$1,000	16th through 30th Day
\$1,500	31st Day and beyond

c. Stipulated penalties shall begin to accrue on the day after a required payment is due, and such penalties shall continue to accrue until the date on which the required payment is received.

d. Interest on Overdue Payments. If Dow fails to make any payment required by Paragraph 11 (Funding for Specific Restoration Projects), Paragraph 13 (Payments to Fund Additional Restoration Projects, Future Restoration Planning, Future Monitoring and Maintenance of Restoration Projects, and Oversight Costs), Paragraph 18 (Payment of Unreimbursed Assessment Costs - Federal Trustee), or Paragraph 23 (Payment of Unreimbursed Assessment Costs - EGLE) by the required due dates, Interest shall be assessed on the unpaid balance. Interest will continue to accrue on the unpaid balance through the date of payment.

e. In the case of late payments due under Paragraph 18 (Payment of Unreimbursed Assessment Costs - Federal Trustee), above, all accrued stipulated penalties, together with any Interest thereon under Paragraph 43 (Interest on Stipulated Penalties), shall be paid to the United States in the manner specified in Subparagraph 46.a.

f. In the case of late payments due under Paragraph 23 (Payment of Unreimbursed Assessment Costs - EGLE), above, all accrued stipulated penalties, together with any Interest thereon under Paragraph 43 (Interest on Stipulated Penalties), shall be paid to EGLE in the manner specified in Subparagraph 46.b.

41. Non-Compliance with Dow-Implemented Restoration Project Obligations. For each failure to (a) meet a project completion deadline, (b) submit

a timely or adequate plan or report required under any SOW, including any plan to implement a contingency measure, (c) implement a contingency measure in accordance with the requirements of an approved plan, or (d) comply with a monitoring and maintenance requirement, in accordance with the requirements of Paragraph 7 and each of the Appendices B–G of this Consent Decree, Dow shall pay the following stipulated penalty:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,500	1st through 30th Day
\$3,000	31st Day and beyond

42. Dow shall pay stipulated penalties as provided below in this Section within thirty (30) Days of receipt of a written demand for such stipulated penalties.

43. Interest on Stipulated Penalties. If Dow fails to pay any stipulated penalties when due, Dow shall pay Interest on the unpaid balance of any stipulated penalties due, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States, the State, or the Tribe from seeking any remedy otherwise provided by law for Dow's failure to pay any stipulated penalties.

44. The United States, on behalf of the Federal Trustee, the State, and/or the Tribe may seek stipulated penalties under this Section by sending to Dow a written notice of noncompliance and a demand for payment of a stipulated penalty or penalties, in the manner specified in Section XXIII (Notices) of this Consent

Decree, with a copy simultaneously sent to the other Plaintiff(s). Where more than one party demands a stipulated penalty for the same violation, the amount of any assessed penalty shall be divided equally among the parties who demanded the stipulated penalty. However, stipulated penalties for any violation of Paragraph 11 (Funding for Specific Restoration Projects), Paragraph 13 (Payments to Fund Additional Restoration Projects, Future Restoration Planning, Future Monitoring and Maintenance of Restoration Projects, and Oversight Costs), Paragraph 18 (Payment of Unreimbursed Assessment Costs - Federal Trustee), or Paragraph 23 (Payment of Unreimbursed Assessment Costs - EGLE) shall accrue as provided in Paragraphs 39 (Assessment of Stipulated Penalties) and 40 (Non-Compliance with Payment Obligations), above, regardless of whether Dow has been notified of a violation.

45. Stipulated Penalties During Dispute Resolution. Stipulated penalties shall continue to accrue as provided in Paragraph 60, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of those Trustees seeking a stipulated penalty under Paragraph 44 that is not appealed to the Court, Dow shall pay accrued penalties determined to be owing, together with Interest, to those Trustees who sought the penalty under Paragraph 44 within thirty

(30) Days of the effective date of the agreement or the receipt of the Trustees' decision or order.

b. If the dispute is appealed to the Court and the Trustee(s) prevail(s) in whole or in part, Dow shall pay all accrued penalties determined by the Court to be owing, together with Interest, within sixty (60) Days of receiving the Court's decision or order, except as provided in Subparagraph 45.c, below.

c. If any Party appeals the District Court's decision, Dow shall pay all accrued penalties determined by the District Court to be owed to the Trustees into an interest-bearing escrow account, established at a duly chartered bank or trust company that is insured by the FDIC, within sixty (60) Days after receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every sixty (60) Days. Within fifteen (15) Days after receipt of the final appellate court decision, the escrow agent shall be directed to pay the balance of the account to the Trustees or to Dow to the extent that they prevail.

46. Payment Instructions. Stipulated penalties and Interest payments under this Section shall be accompanied by a reference to this Consent Decree, be identified as "Stipulated Penalties," and reference "Dow Midland, Michigan, NRD." Notice of payment of a stipulated penalty and Interest payment shall be made to the appropriate Trustees in the manner specified in Section XXIII (Notices).

a. Payments to United States. Dow shall pay any stipulated penalties and Interest due to the United States pursuant to this Section by FedWire EFT to the U.S. Department of Justice in accordance with written instructions to be provided to Dow by the FLU. At the time of payment, Dow shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for stipulated penalties owed pursuant to this Consent Decree, and shall reference the case name, civil action number, DOJ Case Number #90-11-3-08593, and the violations for which the stipulated penalties are being paid to the United States, in accordance with Section XXIII (Notices) of this Consent Decree.

b. Payments to the State. Dow shall make stipulated penalty payments and Interest due to the State by certified check made payable to the State of Michigan – Environmental Response Fund, with a notation that the funds are to be used for future restoration projects, and sent to:

Michigan Department of Environment, Great Lakes, and Energy  
Cashier's Office  
P.O. Box 30657  
Lansing, Michigan 48909-8157

Via Courier:  
Accounting Service Division  
Cashier's Office for EGLE  
1<sup>st</sup> Floor Van Wagoner Building  
425 West Ottawa Street  
Lansing, Michigan 48933-2125

c. Payments to the Tribe. Dow shall make stipulated penalties and Interest due to the Tribe by EFT to the Tribe in accordance with written instructions to be provided to Dow by the Tribe.

47. The payment of penalties and Interest, if any, shall not alter in any way Dow's obligation to complete the performance of the requirements of this Consent Decree.

48. Non-Exclusivity of Remedy. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States, the State, or the Tribe to seek any other remedies or sanctions available by virtue of Dow's violation of this Consent Decree or of the statutes and regulations upon which it is based.

#### **XIV FORCE MAJEURE**

49. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Dow, of any entity controlled by Dow, or of Dow's contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Dow's best efforts to fulfill the obligation. The requirement that Dow 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 (a) as it is occurring and (b) following the potential force majeure, such that the delay



and any adverse effects of the delay are minimized. “Force Majeure” does not include Dow’s financial inability to perform any obligation under this Consent Decree.

50. 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, Dow shall provide notice orally or by electronic or facsimile transmission to the Trustees, within 72 hours of when Dow first knew that the event might cause a delay. Within seven (7) Days thereafter, Dow shall provide in writing to the Trustees an 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; Dow’s rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Dow, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Dow shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Dow from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by

such failure. Dow shall be deemed to know of any circumstance of which Dow, any entity controlled by Dow, or Dow's contractors knew or should have known.

51. If the Trustees agree 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 the Trustees 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. The Lead Administrative Trustee will notify Dow in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

52. If the Trustees do not agree that the delay or anticipated delay has been or will be caused by a force majeure event, the Lead Administrative Trustee will notify Dow in writing of their decision.

53. If Dow elects to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution) related to an alleged force majeure event, it shall do so no later than thirty (30) Days after receipt of the notice from the Lead Administrative Trustee specified in Paragraph 52. In any such proceeding, Dow 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 Dow complied with the requirements of Paragraph 50. If Dow carries this burden, the delay at issue shall be deemed not to be a violation by Dow of the affected obligation of this Consent Decree identified to the Trustees and the Court.

## **XV DISPUTE RESOLUTION**

54. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve any disputes between Dow and one or more of the Trustees arising under or with respect to this Consent Decree; provided, however, that the provisions set forth in this Section shall not apply to proceedings to enforce obligations that have not been disputed in accordance with this Section, and further provided that nothing in this Consent Decree shall be construed to authorize Dow to dispute any action or determination of the Trustees in selecting or carrying out any natural resource restoration activities or in managing or expending funds from the Restoration Account. Dow's failure to seek resolution of a dispute under this Section shall preclude Dow from raising any such issue as a defense to an action by the Trustees to enforce any obligation of Dow arising under this Decree.

55. Informal Dispute Resolution. Any dispute that arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the Trustees and Dow. The dispute shall be considered to have arisen when Dow sends the Trustees a written Notice of Dispute. Such written Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed sixty (60) Days from the date the dispute arises, unless that period is modified by written agreement. If the parties to the dispute cannot resolve a dispute by informal negotiations, then the position advanced by the Trustees shall be considered binding unless, within thirty (30) Days after the conclusion of the informal negotiation period, Dow invokes formal dispute resolution procedures as set forth below.

56. Formal Dispute Resolution.

a. Dow shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the Trustees a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Dow's position and any supporting documentation relied upon by Dow.

b. The Trustees shall serve on Dow their Statement of Position within forty-five (45) Days of receipt of Dow's Statement of Position. The

Trustees' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the Trustees.

c. The Lead Administrative Trustee shall maintain an administrative record of the dispute, including all Statements of Position and accompanying factual data, analysis, opinion, and supporting documentation presented by the parties to the dispute pursuant to this Section.

d. The Regional Director of USFWS, the Directors of EGLE and MDNR, the Michigan Attorney General, and the Chief of the Saginaw Chippewa Indian Tribe of Michigan, or their designees will jointly issue a final administrative decision resolving the dispute based on the administrative record described in Subparagraph 56.c. The Trustees' Statement of Position shall be binding on Dow, unless Dow files a motion for judicial review of the dispute in accordance with the following Paragraph.

57. Judicial Review. Dow may seek judicial review of the dispute by filing with the Court and serving on all other Parties, in accordance with Section XXIII (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within twenty (20) Days of receipt of the Trustees' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Dow's position on the matter in dispute, including any supporting

factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of this Consent Decree.

58. The Trustees shall respond to Dow's motion within the time period allowed by the Local Rules of this Court. Dow may file a reply memorandum, to the extent permitted by the Local Rules.

59. Standard of Review

a. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any proceeding under Paragraph 57 pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules, or any other items requiring approval by the Trustees under this Consent Decree; the adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Dow shall have the burden of demonstrating, based on the administrative record, that the position of the Trustees is arbitrary and capricious or otherwise not in accordance with law.

b. Other Disputes. Except as otherwise provided in this Consent Decree, in any other proceeding under Paragraph 57 Dow shall bear the burden of

demonstrating that its position complies with this Consent Decree and better furthers the Objectives of this Consent Decree.

60. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Dow under this Consent Decree, unless and until final resolution of the dispute so provides. Unless otherwise agreed upon by the Parties in writing, stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 45. If Dow does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIII (Stipulated Penalties).

## **XVI INFORMATION COLLECTION AND RETENTION**

61. Dow shall assure that the Trustees and their representatives, including attorneys, contractors, and consultants, have the right of entry into each of the properties that are the subject of the Natural Resource Restoration Projects described in the SOWs attached as Appendices B–G, at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Consent Decree;

- b. verify any data or information submitted to the Trustees in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Dow or its representatives, contractors, or consultants;
- d. obtain documentary evidence, including photographs and similar data;
- e. assess Dow's compliance with this Consent Decree; and
- f. perform continuing monitoring and maintenance activities for each of the Natural Resource Restoration Projects described in Appendices B through G for twenty-five (25) years following approval of the Project Completion Report for such project.

62. Upon request, Dow shall provide the Trustees or their authorized representatives splits of any samples taken by Dow. Upon request, the Trustees shall provide Dow splits of any samples taken by the Trustees.

63. All rights of access pursuant to this Section shall be in addition to, and shall not limit, any access rights afforded by any law, rule, or regulation.

64. Until five (5) years after the termination of this Consent Decree, Dow shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors'



or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Dow's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States, the State, or the Tribe, Dow shall provide copies of any documents, records, or other information required to be maintained under this Paragraph. Dow shall also make available to the Plaintiffs employees, agents, or representatives of Dow with knowledge of relevant facts concerning their compliance with this Consent Decree.

65. At the conclusion of the information-retention period provided in the preceding Paragraph, Dow shall notify the United States, the State, and the Tribe at least ninety (90) Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States, the State, or the Tribe, Dow shall deliver any such documents, records, or other information to the requesting party. Dow may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Dow asserts such a privilege, it shall provide the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the

name and title of each author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Dow. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

66. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States or the State pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Dow to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

## **XVII COVENANT NOT TO SUE BY PLAINTIFFS**

### **67. Covenant by the United States, the State, and the Tribe.**

a. Except as provided in Section XVIII (Reservation of Rights by the Plaintiffs), below, in consideration of the Natural Resource Damages payments that have been or will be made by Dow under this Consent Decree as well as the Natural Resource Restoration Projects that have been or will be performed or funded by Dow under this Consent Decree, the United States, the State, and the Tribe each covenants not to sue or take administrative action against Dow for recovery of Natural Resource Damages resulting from releases of hazardous

substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree.

b. Except as provided in Section XVIII (Reservation of Rights by the Plaintiffs), below, in consideration of the Natural Resource Damages payments that will be made by the United States, on behalf of Settling Federal Agencies, under this Consent Decree —

- the State and the Tribe each covenant not to sue or take administrative action against the United States, on behalf of the Settling Federal Agencies, and
- the Federal Trustee covenants not to take administrative action against the United States, on behalf of Settling Federal Agencies —

for recovery of Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree.

c. For purposes of Subparagraphs 67.a and 67.b, above, releases of hazardous substances and discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree shall be deemed to include any subsequent re-exposure, resuspension, or migration by natural causes or entities other than Dow of hazardous substances or oil released or discharged at or from the

Midland Facility and known to be present in the sediments, soils or groundwater as of the date of lodging of this Consent Decree.

d. The covenants not to sue set forth in this Paragraph with respect to Dow shall become effective upon receipt of all payments required under Paragraphs 11, 13, 18, and 23. The covenants not to sue set forth in this Paragraph with respect to Settling Federal Agencies shall become effective upon receipt of all payments required under Paragraph 25.

e. Except as provided in Paragraph 69, the covenants not to sue set forth in this Paragraph extend only to Dow and Settling Federal Agencies and do not extend to any other person.

68. Additional Covenants by the State.

a. Except as provided in Section XVIII (Reservation of Rights by the Plaintiffs), below, in consideration of the Additional State Requirements that have been or will be performed or funded by Dow under this Consent Decree, the State covenants not to sue or take administrative action against Dow and Settling Federal Agencies for recovery of certain response costs incurred by the State as described in more detail in Appendix R to this Consent Decree. These covenants do not apply to and have no effect on Dow's obligations to pay the State's response costs, as set forth in the 2010 AOC entered by Dow, EPA, and MDEQ, No. VW-10-C-042, effective date January 21, 2010.

b. Except as provided in Paragraph 69, these covenants not to sue extend only to Dow and Settling Federal Agencies and do not extend to any other person.

69. The covenants not to sue set forth in Paragraphs 67 and 68 (and the reservations set forth in Section XVIII (Reservation of Rights by the Plaintiffs)) also extend to the successors and assigns of Dow and Settling Federal Agencies, but only to the extent that liability of any such person or entity is based solely on that person's or entity's status as a successor or assign of Dow or of a Settling Federal Agency.

### **XVIII RESERVATION OF RIGHTS BY THE PLAINTIFFS**

70. General Reservations of Rights. Notwithstanding any other provision of this Consent Decree —

- the United States, the State, and the Tribe reserve, and this Consent Decree is without prejudice to, all rights against Dow,
- the State and the Tribe reserve, and this Consent Decree is without prejudice to, all rights against the United States, on behalf of the Settling Federal Agencies,
- the Federal Trustee reserves, and this Consent Decree is without prejudice to, all rights against the Settling Federal Agencies —

with respect to all matters other than those expressly specified in the covenants not to sue set forth in Paragraphs 67 and 68 including without limitation the following:

- a. claims against Dow based on a failure of Dow to meet a requirement of this Consent Decree;
- b. claims against Settling Federal Agencies and/or the United States on behalf of Settling Federal Agencies, based on a failure of the United States on behalf of Settling Federal Agencies to make any payment required under this Consent Decree;
- c. liability for injunctive relief or enforcement of administrative orders under Section 106 of CERCLA, 42 U.S.C. § 9606, Section 311 of the Clean Water Act, 33 U.S.C. § 1321, or applicable state law, to require remedial action or removal action in response to releases or threatened releases of hazardous substances;
- d. liability under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), Section 311 of the Clean Water Act, 33 U.S.C. § 1321, or applicable state law, for the costs of removal or remedial action by the United States, the Tribe, or the State, except as explicitly provided in Paragraph 68;
- e. liability for damages for injury to, destruction of, or loss of natural resources, resulting from releases or threatened releases of hazardous

substances or discharges of oil other than releases or discharges at or from the Midland Facility;

f. liability for damages for injury to, destruction of, or loss of natural resources resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility after the lodging of this Consent Decree; provided, however, that nothing in this Subparagraph shall be construed to reserve claims against Dow or the United States, on behalf of Settling Federal Agencies, arising from the re-exposure, resuspension, or migration by natural causes or entities other than Dow of hazardous substances or oil released or discharged at or from the Midland Facility and known to be present in the sediments, soils or groundwater as of the date of lodging of this Consent Decree;

g. liability based on violations of State or Federal law that occur after the date of lodging of this Consent Decree; and

h. criminal liability.

Nothing in this General Reservation of Rights shall signify or constitute acknowledgement or a waiver of federal sovereign immunity by the United States, on behalf of the Settling Federal Agencies, as to any rights asserted or claims reserved by any Party.

71. Limitations on Covenants Not to Sue. Notwithstanding any other provision of this Consent Decree, Plaintiffs reserve, and this Consent Decree is

without prejudice to, the right to institute proceedings against Dow in this action or in a new action seeking recovery of Natural Resource Damages, including costs of damages assessment, resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to entry of this Consent Decree, based on:

a. any condition, unknown to the Trustees as of the date of lodging of this Consent Decree, that results in releases of hazardous substances or discharges of oil at or from the Midland Facility that cause or contribute to any injury to, destruction of, loss of, or loss of use of, Natural Resources (“Unknown Conditions”); or

b. any information received by the Trustees after the date of lodging of this Consent Decree which indicates that releases of hazardous substances or discharges of oil at or from the Midland Facility have resulted in injury to, destruction of, loss of, or loss of use of, Natural Resources that is of a type or future persistence unknown by the Trustees at the time of lodging of this Consent Decree (“New Information”).

72. For purposes of Subparagraphs 71.a and 71.b, the conditions and information known to the Trustees on the date of lodging of this Consent Decree shall include any condition or information known to the Trustees on or prior to the date of lodging of this Consent Decree, including all analyses, diagrams, maps,



reports, and surveys performed in the Assessment Area by or on behalf of the Trustees, and any sampling data and other data in the possession or control of any of the Trustees at any time prior to the date of lodging.

73. For purposes of Subparagraphs 71.a and 71.b, the following shall not be considered Unknown Conditions or New Information:

a. an increase solely in the Trustees' assessment of the magnitude of a known injury to, destruction of, loss of, or loss of use of Natural Resources, resulting from releases of hazardous substances, or discharges of oil, at or from the Midland Facility; and

b. an injury to, destruction of, or loss of Natural Resources arising from the re-exposure, resuspension, or migration by natural causes or entities other than Dow of hazardous substances or oil released or discharged at or from the Midland Facility and known to be present in the sediments, soils, or groundwater as of the date of lodging of this Consent Decree.

## **XIX COVENANTS AND RESERVATIONS OF RIGHTS BY DOW**

74. General Covenant by Dow. Except as provided in Paragraph 78, below, Dow hereby covenants not to sue and agrees not to assert or maintain any claims or causes of action against the United States on behalf of the Federal Trustee, the State, the Tribe, or their employees, agents, contractors, departments,

agencies, administrations, and bureaus, for any matters within the scope of the Covenants Not To Sue in Paragraphs 67 and 68, including, without limitation:

a. claims for Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree,

b. any claims relating to any costs incurred or to be incurred by Dow pursuant to Sections V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources and Lost Natural Resource Services), VI (Payments for Additional Natural Resource Restoration Projects), VIII (Payment of Unreimbursed Assessment Costs), and IX (Additional State Requirements) of this Consent Decree, and

c. any claims relating to any costs incurred by Dow prior to the Effective Date of this Consent Decree in connection with Natural Resource Restoration Projects or reimbursement of Natural Resource Damage Assessment Costs.

In addition, except as provided in Paragraph 78, below, Dow covenants not to sue and agrees not to assert or maintain any claims or causes of action against the United States on behalf of the Federal Trustee, the State, the Tribe, or their employees, agents, contractors, departments, agencies, administrations, and bureaus, for any claim arising out of activities related to Natural Resource

Restoration Projects implemented or funded pursuant to Paragraphs 7, 10, 11, or 13, above, including without limitation, claims based on the Trustees' selection of restoration projects, implementation and oversight of Natural Resource Restoration Projects, and/or approval of plans for such Natural Resource Restoration Projects.

75. Covenants by Dow With Respect to the United States on Behalf of Settling Federal Agencies. Except as provided in Paragraph 78, below, Dow hereby covenants not to sue and agrees not to assert or maintain any claims or causes of action against the United States on behalf of Settling Federal Agencies for the following:

a. claims relating to Natural Resource Damages resulting from any release of a hazardous substance or discharge of oil at or from the Midland Facility, regardless of the date of the release or discharge, including any costs incurred or to be incurred by Dow pursuant to this Consent Decree and any other costs incurred by Dow prior to the Effective Date in connection with any Natural Resource Restoration Projects or reimbursement of Natural Resource Damage Assessment Costs;

b. claims seeking cost recovery or contribution for any payments made or costs incurred pursuant to this Consent Decree (including claims seeking Dow's past and future costs, and all sums paid or to be paid by Dow relating to Natural Resource Damages resulting from releases of hazardous substances or

discharges of oil at or from the Midland Facility), regardless of the date of the release or discharge, including claims under Section 113(f) of CERCLA, 42 U.S.C. § 9613(f); and

c. claims seeking contribution or cost recovery for any response costs incurred or to be incurred by Dow in connection with any removal or remedial action in response to any release or threatened release of a hazardous substance or discharge of oil at or from the Midland Facility, regardless of the date of the release or discharge.

The covenants not to sue set forth in this Paragraph 75 shall become effective upon receipt of all payments required under Paragraph 25.

76. Covenants by Dow With Respect to Claims Seeking Reimbursement From the Hazardous Substance Superfund, the Oil Spill Liability Trust Fund, and/or the Michigan Cleanup and Redevelopment Fund.

a. Subject to the reservations of rights set forth in Subparagraph 76.d and in Paragraph 78, below, Dow hereby covenants not to sue and agrees not to assert or maintain any direct or indirect claim seeking reimbursement from the Hazardous Substance Superfund established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507, the Oil Spill Liability Trust Fund established pursuant to 26 U.S.C. §§ 4611 and 9509, or State of Michigan Cleanup and Redevelopment Fund established pursuant to the NREPA, MCL 324.20108, including claims asserted

through Sections 107, 111, 112, and 113 of CERCLA, 42 U.S.C. §§ 9607, 9611, 9612 and 9613, Section 20119(5) of the NREPA, MCL 324.20119(5), or any other provision of federal or state law, of any Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree, including any costs incurred or to be incurred by Dow pursuant to this Consent Decree and any other costs incurred by Dow prior to the Effective Date in connection with any Natural Resource Restoration Projects or reimbursement of Natural Resource Damage Assessment Costs;

b. Subject to the reservations of rights set forth in Subparagraph 76.d and in Paragraph 78, below, Dow hereby covenants not to sue and agrees not to assert or maintain any direct or indirect claim seeking reimbursement from the Hazardous Substance Superfund established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507, or the Oil Spill Liability Trust Fund established pursuant to 26 U.S.C. §§ 4611 and 9509, including claims asserted through Sections 107, 111, 112, and 113 of CERCLA, 42 U.S.C. §§ 9607, 9611, 9612 and 9613, or any other provision of federal law, of any of the following:

i. any response costs incurred or to be incurred by Dow in connection with any response actions selected or ordered by EPA on or

before November 9, 2018 in response to any release or threatened release of a hazardous substance or any discharge of oil at or from the Midland Facility;

ii. any response costs incurred or to be incurred by Dow to address contaminants in the Tittabawassee River or adjoining riverbank or floodplain areas in connection with any other response actions selected or ordered by EPA in response to any release or threatened release of any hazardous substances or discharge of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree; or

iii. any response costs incurred or to be incurred by Dow relating to any other response actions selected by Dow in response to any release or threatened release of any hazardous substances or discharge of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree.

c. Subject to the reservations of rights set forth in Subparagraph 76.d and in Paragraph 78, below, Dow hereby covenants not to sue and agrees not to assert or maintain any direct or indirect claim seeking reimbursement from the State of Michigan Cleanup and Redevelopment Fund established pursuant to the NREPA, MCL 324.20108, including claims asserted through Section 20119(5) of the NREPA, MCL 324.20119(5), or any other provision of state law, for costs

incurred or to be incurred in implementing the Additional State Requirements described in Appendices O and P.

d. To the extent that Dow incurs response costs to address contaminants in the Saginaw River, Saginaw Bay or adjoining riverbank or floodplain areas pursuant to the requirements of any response actions ordered by EPA under Section 106 of CERCLA after November 9, 2018, in response to any release or threatened release of hazardous substances or any discharge of oil at or from the Midland Facility prior to the date of lodging, Dow reserves any right it may have under Section 106(b)(2) of CERCLA to seek reimbursement of such costs.

77. For purposes of this Section, releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree shall be deemed to include any subsequent re-exposure, resuspension, or migration by natural causes or entities other than Dow of hazardous substances or oil released or discharged at or from the Midland Facility and known to be present in the sediments, soils or groundwater as of the date of lodging of this Consent Decree.

78. Reservations by Dow. Dow reserves, and this Consent Decree is without prejudice to, contribution claims against the United States, on behalf of Settling Federal Agencies, in the event that the United States, on behalf of Settling

Federal Agencies, fails to meet a requirement of this Consent Decree, pursuant to Section X (Settling Federal Agency Payments to Dow). Dow further reserves, and this Consent Decree is without prejudice to, claims against the United States, on behalf of Settling Federal Agencies, for: (a) damages for injury to, destruction of, or loss of natural resources resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility, and (b) costs incurred by Dow in connection with any removal or remedial action in response to releases of hazardous substances at or from the Midland Facility, if such claims for damages under clause (a) or costs under clause (b) result from releases or discharges attributable to the activities of the Settling Federal Agencies at the Midland Facility on or after the date of lodging of this Consent Decree.

79. Waiver of Certain Claims Against Other Persons. Except as provided below in this Paragraph, Dow agrees not to assert any claims and to waive all claims or causes of action that it may have against all other persons (not Parties to this Consent Decree) for contribution to recover any portion of any Natural Resource Damages costs incurred by Dow pursuant to this Consent Decree, any Natural Resource Damage Assessment Costs that Dow paid the Trustees prior to the Effective Date of this Consent Decree, and any costs of Natural Resource Restoration Projects undertaken by Dow prior to the Effective Date of this Consent Decree; provided, however, that Dow reserves the right to assert and pursue



contribution claims against any such person in the event such person first asserts, and for so long as such person pursues, any claim or cause of action against Dow relating to Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility. Nothing in this Paragraph shall operate to waive or release any claim or action by Dow under any contract of insurance.

80. In any subsequent administrative or judicial proceeding initiated by the United States, the Tribe, or the State for injunctive relief, civil penalties, recovery of response costs, or any other appropriate relief relating to the Midland Facility or to releases of hazardous substances or discharges of oil at or from the Midland Facility, Dow shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States, the Tribe, or the State in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraphs 67 and 68.

81. Dow hereby covenants not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree unless the United

States notifies Dow in writing that it no longer supports entry of this Consent Decree.

## **XX COVENANTS BY SETTLING FEDERAL AGENCIES**

82. Settling Federal Agencies agree not to assert any direct or indirect claim for reimbursement of Natural Resource Damages from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through Sections 107, 111, 112, and 113 of CERCLA, 42 U.S.C. §§ 9607, 9611, 9612 and 9613, or any other provision of federal or State law, to the extent that the claim relates to Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree, or any claims for recovery of any costs paid by or on behalf of the Settling Federal Agencies pursuant to this Consent Decree.

83. Settling Federal Agencies agree not to assert any claim against the Oil Spill Liability Trust Fund established pursuant to 26 U.S.C. §§ 4611 and 9509 relating to any Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree, or any claims for recovery of any costs paid by or on behalf of Settling Federal Agencies pursuant to this Consent Decree.

84. Settling Federal Agencies agree not to assert any direct or indirect claim for reimbursement from the State of Michigan Cleanup and Redevelopment Fund (established pursuant to the NREPA, MCL 324.20108) through Section 20119(5) of the NREPA, MCL 324.20119(5), or any other provision of federal or state law, of (i) Natural Resource Damages resulting from releases of hazardous substances at or from the Midland Facility prior to the date of lodging, or (ii) any costs paid by or on behalf of Settling Federal Agencies pursuant to this Consent Decree.

#### **XXI EFFECT OF SETTLEMENT/CONTRIBUTION PROTECTION**

85. Except as provided by operation of law, nothing in this Consent Decree shall be construed to create any right in, or grant any cause of action to, any person not a Party to this Consent Decree. Except as provided in Paragraph 79 of this Consent Decree, each Party to this Consent Decree expressly reserves any and all rights, defenses, claims, demands, and causes of action which such Party may have against any person not a Party hereto with respect to any release of hazardous substances or discharge of oil. This Consent Decree does not limit or affect the rights of any Party against any third parties not Party to this Consent Decree, nor does it limit the rights of third parties not Party to this Consent Decree against any Party to this Consent Decree, except as otherwise provided by law.

86. Contribution Protection.

a. The Parties agree, and by approving and entering this Consent Decree this Court finds, that Dow and Settling Federal Agencies are entitled to protection from contribution actions or claims as provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), with respect to claims for Natural Resource Damages resulting from releases of hazardous substances or discharges of oil at or from the Midland Facility prior to the date of lodging of this Consent Decree, including claims for (i) any costs incurred or to be incurred by Dow pursuant to Sections V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources and Lost Natural Resource Services), VI (Payments for Additional Natural Resource Restoration Projects), VIII (Payment of Unreimbursed Assessment Costs), and IX (Additional State Requirements) of this Consent Decree, and (ii) any costs incurred by Dow prior to the Effective Date of this Consent Decree in connection with Natural Resource Restoration Projects or reimbursement of Natural Resource Damage Assessment Costs.

b. Dow and the United States further agree, and by approving and entering this Consent Decree this Court finds, that Settling Federal Agencies are entitled to protection from contribution actions or claims as provided in Section 113(f)(1) of CERCLA, 42 U.S.C. § 9613(f)(1) and any other applicable provision of federal law, whether by statute or common law, extinguishing the United States'

liability to persons not a Party, with respect to claims for (i) Natural Resource Damages resulting from any releases of hazardous substances or discharges of oil at or from the Midland Facility and paid or to be paid by Dow, including any costs incurred or to be incurred by Dow pursuant to Sections V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources and Lost Natural Resource Services), VI (Payments for Additional Natural Resource Restoration Projects, VIII (Payment of Unreimbursed Assessment Costs), and IX (Additional State Requirements) of this Consent Decree, and any costs incurred by Dow prior to the Effective Date of this Consent Decree in connection with Natural Resource Restoration Projects or reimbursement of Natural Resource Damage Assessment Costs, and (ii) any costs incurred or to be incurred by Dow in connection with any removal action or remedial action in response to any release or threatened release of a hazardous substance or any discharge of oil at or from the Midland Facility, regardless of the date of the release or discharge, provided, however, that the foregoing shall not apply to response costs resulting from releases or discharges attributable to the activities of the Settling Federal Agencies at the Midland Facility on or after the date of lodging.

87. Dow agrees that with respect to any suit or claim for contribution brought against it for matters related to this Consent Decree, it will notify, in writing, the United States, the State, and the Tribe within ten (10) Days of service

of any complaint on it. In addition, Dow shall notify the United States, the State, and the Tribe within ten (10) Days of service or receipt of any Motion for Summary Judgment and within ten (10) Days of receipt of any order from a Court setting a case for trial.

## **XXII GENERAL PROVISIONS**

88. Permits. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Dow is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Dow's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth in Section XVII (Covenant Not To Sue By Plaintiffs).

89. Where any compliance obligation under this Section requires Dow to obtain a federal, state, or local permit or approval, Dow shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Dow may seek relief under the provisions of Section XIV (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Dow has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

90. The United States, the Tribe, and the State do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Dow's compliance with any aspect of this Consent Decree will result in compliance with any applicable federal or State or local laws, regulations, or permits.

### **XXIII NOTICES**

91. Unless otherwise specified in this Consent Decree, whenever notifications, submissions, or communications are required to be given or a document is required to be sent by one Party to another, it shall be made in writing and directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of the change to the other Parties in writing as follows:

As to the United States:

U.S. Department of Justice by email: [eescdcopy.enrd@usdoj.gov](mailto:eescdcopy.enrd@usdoj.gov)  
Re: DJ # 90-11-3-08953

U.S. Department of Justice by mail:  
EES Case Management Unit  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, D.C. 20044-7611  
Re: DJ # 90-11-3-08953

And  
Chief, Environmental Defense Section  
Environment and Natural Resources  
Division  
P.O. Box 7611  
Washington, D.C. 20044-7611  
Re: DJ ## 90-11-6-05801, 90-11-6-17614

DOI:  
Kimberly Gilmore  
Office of the Solicitor  
U.S. Department of the Interior  
Three Parkway Center - Suite 385  
Pittsburgh, PA 15220  
[Kimberly.Gilmore@sol.doi.gov](mailto:Kimberly.Gilmore@sol.doi.gov)

As to the State:  
Polly A. Synk  
Assistant Attorney General  
Environment, Natural Resources, and  
Agriculture Division  
6th Floor, G, Mennen Williams Building  
Lansing, MI 48909  
525 West Ottawa Street  
Lansing, MI 48933  
[synkp@michigan.gov](mailto:synkp@michigan.gov)

As to the Tribe:  
The Saginaw Chippewa Indian Tribe of  
Michigan  
Attention: General Counsel for Tribal  
Operations  
7070 East Broadway  
Mt. Pleasant, MI 48858  
[savery@sagchip.org](mailto:savery@sagchip.org)



As to the Lead Administrative Trustee:

Lisa L. Williams  
U.S. Fish and Wildlife Service  
2651 Coolidge Road  
East Lansing, MI 48823  
[Lisa.Williams@fws.gov](mailto:Lisa.Williams@fws.gov)

As to Dow:

The Dow Chemical Company  
Attention: Environmental Remediation  
Director  
2211 H.H. Dow Way  
Midland, MI 48674

And

The Dow Chemical Company  
Attention: Project Manager  
[tskonechne@dow.com](mailto:tskonechne@dow.com)

And

Brian D. Israel  
Arnold & Porter Kaye Scholer LLP  
601 Massachusetts Ave., NW  
Washington, D.C. 20001  
[Brian.Israel@arnoldporter.com](mailto:Brian.Israel@arnoldporter.com)

Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

92. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

93. Certification of Notices and Submissions. All notices and submissions required by this Consent Decree to be submitted by or on behalf of Dow shall be

certified by a responsible official or designated representative of Dow and accompanied by the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

#### **XXIV EFFECTIVE DATE**

94. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter this Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

#### **XXV RETENTION OF JURISDICTION**

95. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Consent Decree or entering orders modifying this Consent Decree, pursuant to Sections XV (Dispute Resolution) and XXVI (Modification), or effectuating or enforcing compliance with the terms of this Consent Decree.

## **XXVI MODIFICATION**

96. This Consent Decree, including Appendices, shall constitute the entire agreement of the Parties and shall not be modified by any prior oral or written agreement, representation, or understanding. The terms of this Consent Decree, including any attached Appendices, may be modified only by a subsequent written agreement signed by all Parties, except that in the case of any provision of this Consent Decree that establishes an obligation that runs to and is enforceable by a single Party, such provision may be modified by a written agreement signed only by Dow and such Party. Any material modification of this Consent Decree shall be effective only upon approval by the Court. Material changes shall not include agreed-upon changes to deadlines set forth in Appendix Q (NRD Restoration Project Schedules) or to deadlines in any schedules approved by the Trustees in accordance with the provisions of applicable SOWs, provided that the Parties provide notice to the Court of such changes.

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

98. The provisions of this Consent Decree are not severable. The Parties' consent hereto is conditioned upon the entry of this Consent Decree in its entirety without modification, addition, or deletion except as agreed to by the Parties.

99. Neither unanticipated or increased costs or expenses associated with implementation of actions called for by this Consent Decree, nor economic hardship or changed financial circumstances of Dow, shall serve as a basis for modification of this Consent Decree.

100. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 59, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

## **XXVII COSTS**

101. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States, the State, and the Tribe shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of stipulated penalties due but not paid by Dow.

## **XXVIII TERMINATION**

102. After Dow has: (a) completed the requirements of the Natural Resource Restoration Projects set forth in Section V (Projects to Restore, Rehabilitate, or Replace Injured Natural Resources Damages and Lost Natural Resource Services) of this Consent Decree; (b) received a Certificate of Project Completion from the Trustees pursuant to Paragraph 9 for each Dow-implemented

project; (c) made all payments required by Paragraphs 11, 13, 18, and 23 of this Consent Decree, including the payment of any Interest due on such payments; (d) complied with the requirements of Section IX (Additional State Requirements); and (e) complied with all other requirements of this Consent Decree, including payment of any accrued stipulated penalties and Interest as required by this Consent Decree, Dow may serve upon the United States, the State, and the Tribe a Request for Termination, stating that Dow has satisfied those requirements, together with all necessary supporting documentation.

103. Following receipt of Dow's Request for Termination by the United States, the State, and the Tribe, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Dow has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States, the State, and the Tribe agree that Dow has satisfied the requirements for termination set forth above and that this Consent Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating this Consent Decree.

104. If the United States, the State, and the Tribe do not agree that Dow has satisfied the requirements for termination set forth above and that this Consent Decree may be terminated, Dow may invoke dispute resolution under Section XV (Dispute Resolution). However, Dow shall not seek dispute resolution of any

dispute regarding termination until sixty (60) Days after service of its Request for Termination.

105. The provisions set forth in Sections XII (Indemnification), XVI (Information Collection and Retention), XVII (Covenant Not To Sue By Plaintiffs), XVIII (Reservation of Rights by the Plaintiffs), XIX (Covenants and Reservations of Rights by Dow), XX (Covenants by Settling Federal Agencies), and XXI (Effect of Settlement/Contribution Protection) will remain enforceable notwithstanding termination of this Consent Decree.

## **XXIX PUBLIC PARTICIPATION**

106. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) Days for public notice and comment. The United States reserves the right to withdraw or withhold its consent to this Consent Decree if (i) public comments regarding this Consent Decree disclose facts or considerations indicating that this Consent Decree is inappropriate, improper, or inadequate, or (ii) any of the Natural Resource Restoration Projects identified in Paragraphs 7, 10, and 11 of this Consent Decree is inconsistent with the final Restoration Plan adopted by the Trustees following public comment on the proposed Restoration Plan. Dow consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of this Consent Decree, unless the United States has notified Dow in

writing that it no longer supports entry of this Consent Decree. If for any reason the Court should decline to approve this Consent Decree in the form presented, or if approval and entry is subsequently vacated on appeal of such approval and entry, 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.

### **XXX SIGNATORIES AND SERVICE**

107. The undersigned representatives of Dow, the Tribe, and the State, and the undersigned Deputy Assistant Attorney General of the United States, each certifies 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. This Consent Decree may be executed in multiple counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

108. Dow shall identify, on the attached signature pages, the name, address, and telephone number of an agent who is authorized to accept service of process by mail on behalf of Dow with respect to all matters arising under or relating to this Consent Decree. Dow hereby agrees 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. The Parties agree that Dow need not file an answer to the

complaint in this action unless or until: (i) the United States has notified Dow in writing that it no longer supports entry of this Consent Decree; or (ii) the Court expressly declines to enter this Consent Decree.

### **XXXI INTEGRATION**

109. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Consent Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Consent Decree, the Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree and its Appendices.

### **XXXII APPENDICES**

110. The following Appendices are attached to and part of this Consent Decree:

“Appendix A” is a map of the Midland Facility;

“Appendix B” is the Statement of Work for the Midland Fish Passage Restoration Project;

“Appendix C” is the Statement of Work for the Greater Midland Nature Preserve Restoration Project;



“Appendix D” is the Statement of Work for the Eagle Ridge Nature Area Restoration Project;

“Appendix E” is the Statement of Work for the Tittabawassee River Floodplain Restoration and Bike Trail Project;

“Appendix F” is the Statement of Work for the Bay City Ecological Restoration Project;

“Appendix G” is the Statement of Work for the Saginaw River Mouth Boating Access Site Expansion Project;

“Appendix H” is an Agreement for Conservation Easement form that includes a description of land use restrictions that shall be incorporated in conservation easements or other similar instruments applicable to Natural Resource Restoration Projects set forth in Appendices B–G;

“Appendix I” describes land use restrictions that must be incorporated in conservation easements restrictions on specified properties along the Tittabawassee River that comprise the Tittabawassee River Green Corridor Restoration Project;

“Appendix J” is a description of the Shiawassee National Wildlife Refuge Restoration Project;

“Appendix K” is a description of the Thomas Township Nature Preserve Restoration Project;

“Appendix L” is a description of the Saginaw Riverfront Park Restoration Project;

“Appendix M” is a description of the Saginaw Bay Spawning Reef Project;

“Appendix N” is a description of the Saginaw Chippewa Tribe Restoration Project;

“Appendix O” is a description of the Rear Range Lighthouse Renovation and Preservation Funding Project;

“Appendix P” is a description of the BaySail Environmental Education Program Project;

“Appendix Q” is the NRD Restoration Project Schedules;

“Appendix R” is the Combined Summary of State of Michigan Waived Costs; and

“Appendix S” is the Nature Trail Guidelines.

### **XXXIII FINAL JUDGMENT**

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, the Tribe, and Dow as to the claims specified in Section XVII (Covenant Not to Sue by Plaintiffs) of this Consent Decree, subject to the reservations of rights and reopener in Section XVIII (Reservation of Rights by the Plaintiffs) of this Consent Decree, and as to the claims and subject to the reservations of rights and reopeners specified in

Section XIX (Covenants and Reservations of Rights by Dow), and Section XX (Covenants by Settling Federal Agencies) of this Consent Decree. The Court finds that there is no reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED.

Date: July 27, 2020

s/Marianne O. Battani  
MARIANNE O. BATTANI  
United States District Judge

THE UNDERSIGNED PARTY enters into this Consent Decree Regarding Natural Resource Damages and Certain Other Claims With Respect to Releases from Dow's Midland, Michigan Facility (E.D. Michigan):

FOR THE UNITED STATES OF AMERICA:

JONATHAN D. BRIGHTBILL  
Deputy Assistant Attorney General  
Environment and Natural Resources Division  
U.S. Department of Justice

s/ Steven J. Willey  
STEVEN J. WILLEY (Ohio 0025361)  
Senior Counsel  
Environmental Enforcement Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, DC 20044-7611  
Steven.Willey@usdoj.gov  
202-514-2807

s/ with consent of Daniel R. Dertke  
DANIEL R. DERTKE (Iowa 2889)  
Trial Attorney  
Environmental Defense Section  
Environment and Natural Resources Division  
U.S. Department of Justice  
P.O. Box 7611  
Washington, DC 20044-7611  
Daniel.Dertke@usdoj.gov  
202-514-0994

THE UNDERSIGNED PARTY enters into this Consent Decree Regarding Natural Resource Damages and Certain Other Claims With Respect to Releases from Dow's Midland, Michigan Facility (E.D. Michigan):

FOR THE UNITED STATES OF AMERICA

(cont.):

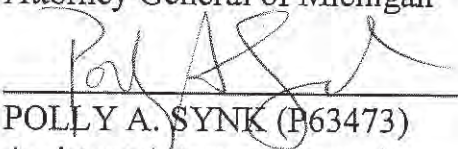
MATTHEW SCHNEIDER  
United States Attorney  
Eastern District of Michigan

s/ with consent of Lynn M. Dodge  
Lynn M. Dodge (P38136)  
Assistant United States Attorney  
Eastern District of Michigan  
211 W. Fort Street, Suite 2001  
Detroit, MI 48226

THE UNDERSIGNED PARTY enters into this Consent Decree Regarding Natural Resource Damages and Certain Other Claims With Respect to Releases from Dow's Midland, Michigan Facility (E.D. Michigan):

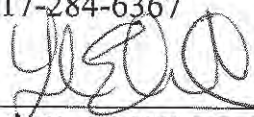
FOR THE STATE OF MICHIGAN:

DANA NESSEL  
Attorney General of Michigan

  
POLLY A. SYNK (P63473)  
Assistant Attorney General  
Michigan Department of Attorney General  
Environment, Natural Resources,  
and Agriculture Division  
6th Floor, G. Mennen Williams Building  
525 West Ottawa Street  
Lansing, MI 48933  
517-373-7540  
synkp@michigan.gov

10-22-19

DANIEL EICHINGER, Director  
Michigan Department of Natural Resources  
Constitution Hall, 525 West Allegan Street  
P.O. Box 30028  
Lansing, MI 48909-7528  
517-284-6367

  
LIESL EICHLER CLARK, Director  
Michigan Department of Environment, Great  
Lakes, and Energy  
P.O. Box 30473  
Lansing, MI 48909-7973  
517-284-6700


THE UNDERSIGNED PARTY enters into this Consent Decree Regarding Natural Resource Damages and Certain Other Claims With Respect to Releases from Dow's Midland, Michigan Facility (E.D. Michigan):

FOR THE STATE OF MICHIGAN:

DANA NESSEL  
Attorney General of Michigan

---

POLLY A. SYNK (P63473)  
Assistant Attorney General  
Michigan Department of Attorney General  
Environment, Natural Resources,  
and Agriculture Division  
6th Floor, G. Mennen Williams Building  
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DANIEL EICHINGER, Director  
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Constitution Hall, 525 West Allegan Street  
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517-284-6367

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LIESL EICHLER CLARK, Director  
Michigan Department of Environment, Great  
Lakes, and Energy  
P.O. Box 30473  
Lansing, MI 48909-7973  
517-284-6700

THE UNDERSIGNED PARTY enters into this Consent Decree Regarding Natural Resource Damages and Certain Other Claims With Respect to Releases from Dow's Midland, Michigan Facility (E.D. Michigan):

FOR THE SAGINAW CHIPPEWA INDIAN  
TRIBE OF MICHIGAN:



---

RONALD F. EKDAHL  
Tribal Chief  
Saginaw Chippewa Indian Tribe of Michigan  
7070 E. Broadway  
Mt. Pleasant, MI 48858  
989-775-4033



THE UNDERSIGNED PARTY enters into this Consent Decree Regarding Natural Resource Damages and Certain Other Claims With Respect to Releases from Dow's Midland, Michigan Facility (E.D. Michigan):

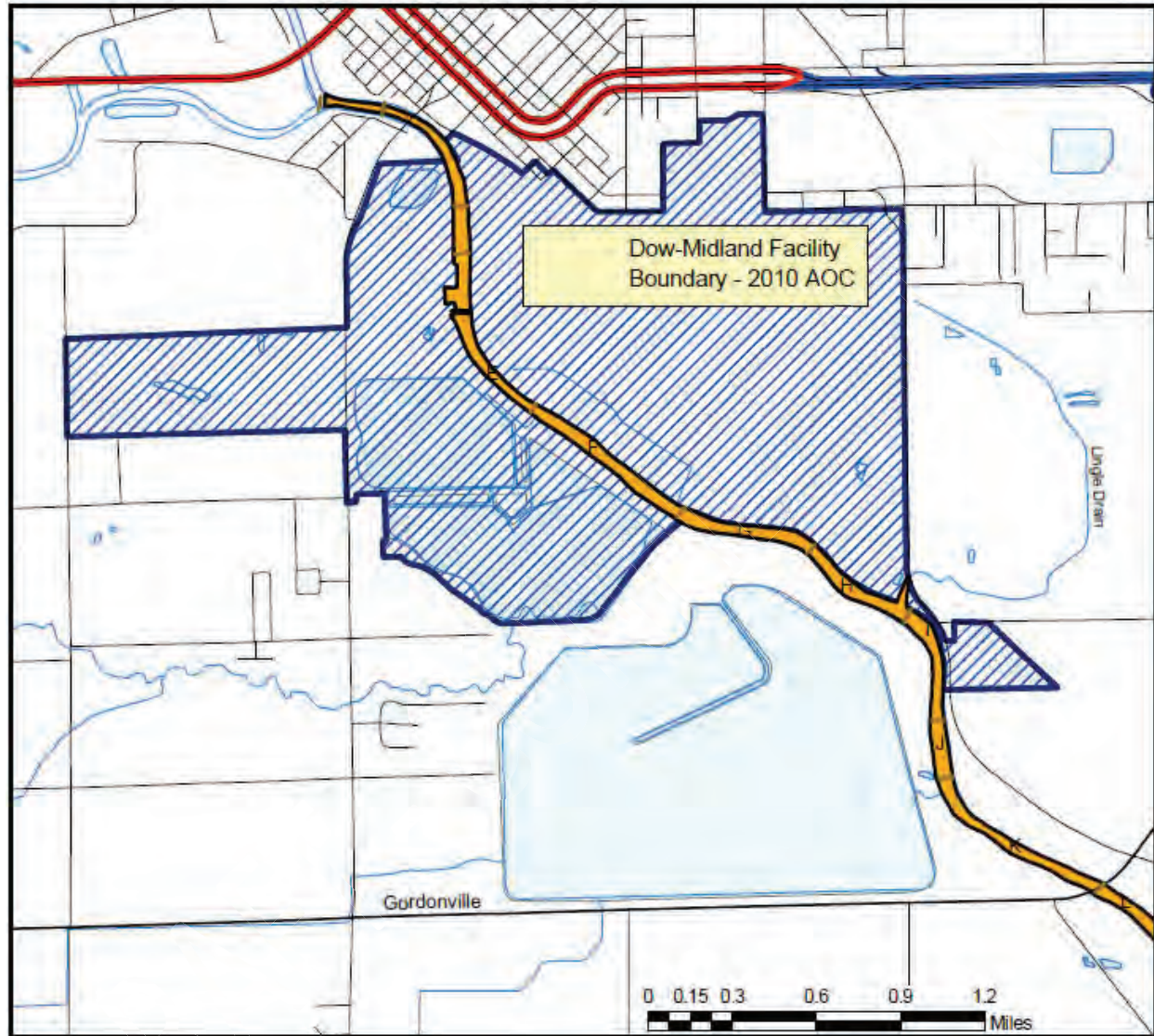
FOR THE DOW CHEMICAL COMPANY:

Mary J. Draves 6/17/19  
MARY DRAVES  
Global Director  
Environmental Remediation and Restoration  
The Dow Chemical Company

Brian D. Israel 6/19/19  
BRIAN D. ISRAEL (DC 471023)  
Arnold & Porter Kaye Scholer LLP  
601 Massachusetts Ave., NW  
Washington, DC 20001  
202-942-6456  
Brian.Israel@arnoldporter.com

## APPENDIX A

Map of The Dow Chemical Company's Midland Facility



Dow-Midland Facility Boundary



Notes:

The Dow-Midland Facility Boundary is based on Appendix D the 2010 Administrative Agreement and Order on Consent Y-W-10-C-942, effective January 14, 2010.

**APPENDIX B**  
**Statement of Work**  
**Midland Fish Passage Project**

- I. Purpose**
- II. Project Location and Current Conditions**
- III. Project Requirements**
- IV. Site and Environmental Characterization**
- V. Conceptual Design Proposal**
  - A. Site Conditions and Constraints
  - B. Conceptual Design
- VI. Design and Implementation**
  - A. Preliminary Design Plan
  - B. Final Design and Implementation Plan
  - C. Implementation
  - D. Construction Completion Report
- VII. Monitoring and Maintenance**
  - A. Fish Use Monitoring
  - B. Monitoring and Maintenance Plan
    - 1. Monitoring and Maintenance Goals
    - 2. Performance Standards and Contingency Measures
    - 3. Monitoring Methods and Frequencies
      - a. Monitoring Methods
      - b. Monitoring Frequency and Duration
    - 4. Monitoring and Maintenance Report
  - C. Project Completion Report
- VIII. Deliverables Summary**
- IX. NRD Restoration Project Schedules**
- X. Contact Information**

## **Statement of Work**

### **Midland Fish Passage Project**

#### **I. Purpose**

The purpose of this Statement of Work (SOW) is to describe the requirements for the Midland Fish Passage Project (“Project”).

#### **II. Project Location and Current Conditions**

The Dow Dam on the Tittabawassee River is located in Midland at Dow’s Midland Operations (Figure 1). It currently impedes fish passage during most flow conditions and yet also provides downstream habitat for spawning by species like Walleye.

#### **III. Project Requirements**

Dow shall implement all requirements described below in this SOW in accordance with applicable provisions of the NRD Restoration Project Schedules in Appendix Q and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The project requirements are:

- A.** Develop Design Criteria Performance Standards that identify the structure and hydrologic conditions needed to successfully allow passage of Indicator Fish Species.<sup>1</sup>
- B.** Construct a fish passage structure (e.g., rock ramp, step pool rapids) to provide improved fish passage upstream and downstream while maintaining water elevations upstream of Dow Dam. Figure 1 provides a conceptual illustration of the possible footprint of a fish passage structure downstream of the Dow Dam, though final decisions on the type and location of a fish passage structure will be made with the approval of the Final Design and Implementation Plan.
- C.** Monitoring and Maintenance in accordance with Section VII.

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<sup>1</sup> Indicator Fish Species for fish passage shall be White Bass, Walleye, and White Sucker.

#### **IV. Site and Environmental Characterization**

Dow shall collect information needed to develop design and implementation proposals and plans that include an evaluation of site conditions and constraints, as described in Section V.A and an assessment of the baseline for existing conditions, including fish use, as described in Section VII.

#### **V. Conceptual Design Proposal**

Dow shall submit a Conceptual Design Proposal to the Trustees for written approval following a collaborative development process with Trustees. The Conceptual Design Proposal shall describe site conditions and constraints and provide a conceptual design of one or more alternatives designed to meet Design Criteria Performance Standards developed in accordance with this SOW. The Conceptual Design Proposal shall contain the following elements:

##### **A. Site Conditions and Constraints**

1. A site plan which shows the location of the dam, existing stream channel, known constraints, dimensions, and scale
2. Transverse and longitudinal cross-sections through the dam and its vicinity that show connected structures; the upstream and downstream water levels at low flow, bankfull flow (if relevant for this location), 5 year flood flow<sup>2</sup>, and 100 year flood; and the stream channel bottom
3. Bathymetry and characterization of bottom substrate downstream of the dam that will be affected by the project

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<sup>2</sup> Due to anthropogenic influences on the stream channel in the vicinity of the Dow Midland Plant, flow events associated with calculated bankfull discharges may not correspond to channel forming stresses for the proposed structure. Because of this, the discharge associated with predicted 5 year return interval (20% occurrence) based on annual peak events in the period of record will be one of the discharges used for monitoring purposes. The estimated peak discharge occurring with an approximate 5 year return interval in the current period of record (1936 – 2016) is 23,000 cubic feet per second at USGS Gage 4156000, Tittabawassee River at Midland.



4. Hydrologic evaluation at multiple discharges including low flow, bankfull flow (if relevant for this location), 5 year flood flow, and 100 year flood flow
5. Documentation of the head elevation needs and constraints for the upstream impoundment for both recreational uses and Dow operational needs, including but not limited to, water-dependent recreation at and from City of Midland parks and Dow's water intake, upstream wetland, and groundwater control system.
6. Description of the acceptable range of water velocities, slopes, and flow configurations (e.g., resting areas for fish if necessary) that are expected to pass Indicator Fish Species (White Bass, White Sucker and Walleye), given that fish species vary in their abilities to swim in bursts, sustain prolonged speeds, and leap.
7. Address Section 106 of the National Historic Preservation Act to assure compliance
8. To the extent a survey is feasible and can be performed safely, provide a determination if there is a freshwater mussel population present in the Project area that could be impacted by the Project
9. Describe other conditions or constraints that may affect the design or that could be affected by the Project, including but not limited to existing Sediment Management Areas installed pursuant to Consent Orders previously issued by U.S. EPA.

**B. Conceptual Design**

1. Provide a description of the project objectives
2. Provide conceptual level drawings that reflect Dow's proposed alternatives for achieving project requirements.
3. Explain how the proposed alternatives will achieve the project requirements

## **VI. Design and Implementation**

Dow shall submit to the Trustees for approval a Preliminary Design Plan, Final Design and Implementation Plan, and Construction Completion Report. The design and implementation plans shall provide a detailed description of the activities to meet the project requirements and Design Criteria Performance Standards described in the SOW. A general summary of each document is provided below.

### **A. Preliminary Design Plan**

Dow shall submit a Preliminary Design Plan, including 30% design drawings, to the Trustees for review and written approval. Upon receiving written approval of the Preliminary Design Plan by the Trustees, Dow shall prepare the required permit applications to be submitted to the appropriate regulatory agencies. Dow may submit permit applications prior to Trustee approval of the Preliminary Design Plan if Dow obtains written approval from the Trustees for such earlier submission.

The Preliminary Design Plan shall include preliminary plans for implementing the elements in Section III (Project Requirements), above, and plans for the following elements:

1. Proposed Design Criteria Performance Standards that meet the requirements in Section VII.B.2.
2. Preliminary-level design drawings for the alternative or alternatives proposed by Dow for achieving the requirements of this project
3. An explanation of how the proposed alternative(s) will achieve the project requirements and meet the Design Criteria Performance Standards that will provide improved upstream and downstream fish passage while maintaining necessary water elevations upstream of Dow Dam
4. Provisions for a conservation easement that Dow shall impose on the property where the fish passage structure will be located, consistent with applicable law, to ensure that the fish passage

structure is not altered in a way that would reduce fish passage or habitat in the event of a sale or transfer to a third party

5. The size, shape and area coverage of the substrate that will be used for the fish passage structure.
  - a. The Trustees may propose a substrate size and shape that is suitable for Walleye and Lake Sturgeon spawning. Dow will include the proposed substrate in the Preliminary Design Plan for use in the construction of the fish passage structure only if its fish passage design consultant approves such use.
6. Safety measures for recreational boaters (e.g., temporary river closure, buoys and signage) during and following implementation, presumably building on existing safety measures and portage structure
7. Construction sequencing
8. Site stabilization and erosion control measures
9. Conservation of native freshwater mussels that may be affected by the construction of the Project (e.g., surveys, and relocation), if such conservation is feasible and can be performed safely
10. Management structure and proposed contacts including:
  - a. Names, addresses, email addresses, phone numbers (including cell) for Dow project representatives
  - b. Company names for proposed prime and subcontractor(s)
11. Schedule of activities:
  - a. Final design submittal
  - b. Trustee written approval
  - c. Permitting
  - d. Construction



## **B. Final Design and Implementation Plan**

After receipt of Trustee written approval for the Preliminary Design Plan, Dow shall provide the Trustees with the Final Design and Implementation Plan for review and written approval. The Final Design and Implementation Plan shall include the final plans for the elements within the Preliminary Design Plan and the following:

- Additional detail on implementation steps, sequencing, and schedule
- Draft or submitted permit application(s)
- Plan for assessment of hydrologic conditions before and after implementation
- Final details of the Design Criteria Performance Standards described in Section VII.B
- Plans to ensure that the structure is built according to design, functioning consistent with design (e.g., expected velocities and water elevations given discharges), and stable over an initial period during and immediately after implementation.

## **C. Implementation**

After receipt of Trustee written approval for the Final Design and Implementation Plan, Dow shall implement the Project in accordance with the approved Final Design and Implementation Plan and schedule.

## **D. Construction Completion Report**

Upon completing construction of the Project, Dow shall submit a Construction Completion Report to the Trustees for review and written approval. The Construction Completion Report shall document the final actions taken to meet the objectives of the Project consistent with the approved Final Design and Implementation Plan.

The Construction Completion Report will include the following:

1. As-built drawings

2. Any deviations from the Final Design and Implementation Plan and an explanation of the reasons for the deviation
3. Results of hydrologic assessment before and after implementation

Within 60 days after submission of the Construction Completion Report and sufficient opportunity for the Trustees to conduct a Project inspection visit, the Trustees shall provide written notification indicating if the implementation phase is considered complete.

## **VII. Monitoring and Maintenance**

### **A. Fish Use Monitoring**

Dow shall propose a fish use monitoring plan to trustees for review and written approval with the goal of establishing lines of evidence that the Project is passing indicator species of fish with greater frequency than prior to the Project. Methods in the Fish Use Monitoring Plan shall consist of pre- and post- construction electrofishing surveys upstream of the fish passage structure location utilizing a visual observation method with a per unit effort (PUE) approach. Dow shall conduct pre-construction Fish Use Monitoring for a minimum of 2 years, and post-construction Fish Use Monitoring for 5 years. To obtain a monitoring year with low spring flows, the 5 years of required monitoring may not necessarily be sequential. Notwithstanding the monitoring requirements in this section VII.A., nothing in this SOW shall be construed to establish a Performance Standard for fish use.

### **B. Monitoring and Maintenance Plan**

Dow shall develop and submit to Trustees for written approval a Monitoring and Maintenance Plan. The Monitoring and Maintenance Plan shall include a detailed description of how Dow will perform monitoring activities to show that Design Criteria Performance Standards are met, as set forth below. The monitoring period extends from the date of construction completion as recorded in the approved Construction Completion Report until approval of the Project Completion Report. The Monitoring and Maintenance Plan shall detail: goals, monitoring methods,

monitoring frequency and duration, and reporting requirements for the monitoring period.

**1. Monitoring and Maintenance Goals**

Post-construction performance shall be measured through Monitoring and Maintenance activities. The goals of the Monitoring and Maintenance Plan are to determine (1) if restoration has achieved Design Criteria Performance Standards, (2) if contingency measures are needed, and (3) if contingency measures (if any) are successful in meeting Design Criteria Performance Standards.

**2. Performance Standards and Contingency Measures**

Dow shall meet the Design Criteria Performance Standards for the Project as approved in the Final Design and Implementation Plan. The Design Criteria Performance Standards shall support a demonstration of the following:

- (a) that the structure has been installed with elevations per design, and
- (b) that the structure creates hydrologic conditions (e.g. velocity and configuration of appropriate depths over the range of river discharges used in the Final Design and Implementation Plan) for the passage of Indicator Fish Species.

If necessary to meet Design Criteria Performance Standards, Dow shall propose Contingency Measures for Trustee review and written approval as set forth below and pursuant to Paragraph 8 of the Consent Decree, including any supplemental monitoring requirements applicable to the proposed Contingency Measures. Such Contingency Measures may include those listed below or Dow may propose additional or alternative Contingency Measures.

- 1) Contingency Measure – Compare as-built drawings to current conditions to ensure elevations are as designed and repair structure as necessary
- 2) Contingency Measure - Conduct hydrologic analysis of flow velocities and configurations through the structure and modify

design and structure as necessary to ensure elevations and hydrologic conditions (flow velocity and configuration) are consistent with the project objectives in the Final Design and Implementation Plan.

**3. Monitoring Methods and Frequencies**

**a. Monitoring Methods**

Fish Passage Structure and Hydrology Monitoring. Dow shall document methods for the monitoring period as standard operating procedures attached to the Monitoring and Maintenance Plan. Monitoring methods must be sufficient to evaluate progress toward attainment of Design Criteria Performance Standards.

**b. Monitoring Frequency and Duration**

Dow shall conduct post-construction Fish Passage Structure and Hydrology monitoring for 5 years following completion of construction or until the Design Criteria Performance Standards are met, whichever is later. Post-construction monitoring shall include a flow event with at least a 5 year return interval (currently estimate at 23,000 cubic feet per second), measured at USGS Gage 4156000 Tittabawassee River at Midland. To obtain a monitoring event with the 5 year flow return interval, the 5 years of required monitoring will not necessarily be sequential.

**4. Monitoring and Maintenance Report**

Dow shall submit a Monitoring and Maintenance Report to the Trustees by January 31<sup>st</sup> of the year following each year that monitoring activities are conducted per the SOW. Each Monitoring and Maintenance Report will include:

- a. Methods used for monitoring and maintenance
- b. Results

- c. Discussion of results and how they compare to Design Criteria Performance Standards
- d. Recommended contingency measures, if any
- e. Appendices to include data, maps, and photos.

### **C. Project Completion Report**

Dow shall submit a Project Completion Report to the Trustees for review and written approval. The Project Completion Report shall summarize all maintenance and monitoring activities as well as any other findings that occurred during the entire monitoring period.

## **VIII. Deliverables Summary**

This SOW includes the following deliverables each being summarized in the above sections:

- Fish Use Monitoring Plan (Section IV.A)
- Conceptual Design Proposal (Section V)
- Preliminary Design Plan (Section VI.A)
- Final Design and Implementation Plan (Section VI.B)
- Construction Completion Report (Section VI.D)
- Monitoring and Maintenance Plan (Section VII)
- Monitoring and Maintenance Reports (Section VII.D)
- Project Completion Report (Section VII.E)

## **IX. NRD Restoration Project Schedules**

Dow shall complete all activities and submit all deliverables for the Project in accordance with the schedule set forth or developed pursuant to the NRD Restoration Project Schedules, which is attached to the Consent Decree as Appendix Q, and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The NRD Restoration Project Schedules set forth the timeline for major activities for each of the Dow-implemented Restoration Projects identified in Section V of the Consent Decree, including Restoration Progress Meetings and the deadlines for all

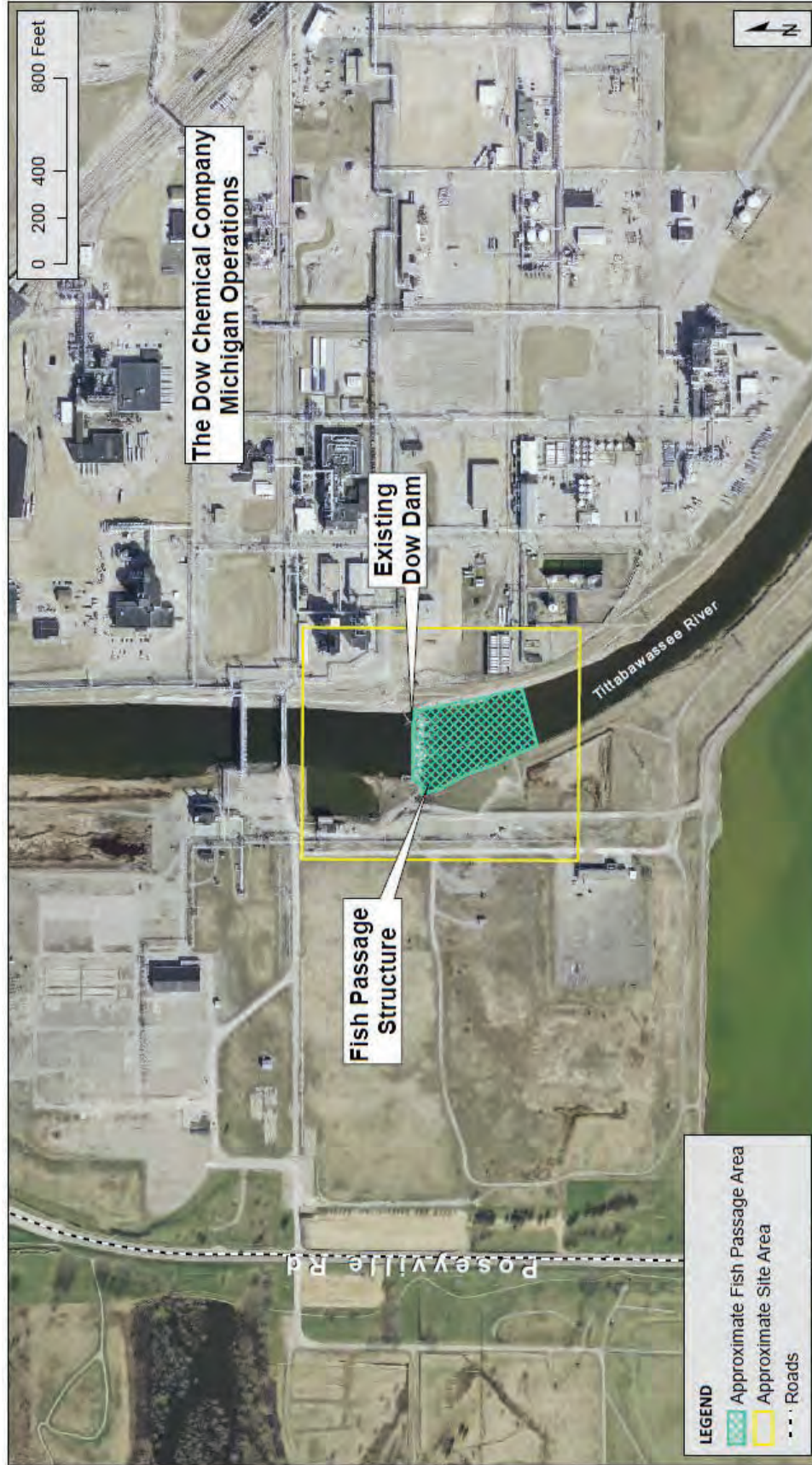
deliverables. Dow may submit reasonable and prudent modifications to the NRD Restoration Project Schedules to the Trustees for written approval, as provided for in Paragraph 7 of the Consent Decree.

**X. Contact Information**

Dow shall submit all Project deliverables via electronic mail to Trustees in accordance with Section XXIII (Notice) of the Consent Decree. In addition, the Trustees may identify a reasonable number of contacts to receive hard copies of any deliverables.



Figure 1. Location and approximate extent of Midland Fish Passage Project



**APPENDIX C**  
**Statement of Work**  
**Greater Midland Nature Preserve**

- I. Purpose**
- II. Project Location and Current Conditions**
- III. Project Requirements**
- IV. Environmental Characterization**
  - A. Soil
  - B. Hydrology
  - C. Vegetation
  - D. Environmental Characterization Report
- V. Design and Implementation**
  - A. Preliminary Design Plan
  - B. Final Design and Implementation Plan
  - C. Implementation
  - D. Construction Completion Report
- VI. Monitoring and Maintenance Plan**
  - A. Monitoring and Maintenance Goals
  - B. Performance Standards and Contingency Measures
    - 1. Environmental Characterization
    - 2. Habitat Restoration
    - 3. Recreational Amenities
  - C. Monitoring Methods and Frequencies
    - 1. Monitoring Methods
    - 2. Monitoring Frequencies
  - D. Monitoring and Maintenance Report
  - E. Project Completion Report
- VII. Deliverables Summary**
- VIII. NRD Restoration Project Schedules**
- IX. Contact Information**



## **Statement of Work**

### **Greater Midland Nature Preserve**

#### **I. Purpose**

The purpose of this Statement of Work (“SOW”) is to describe the requirements for the Greater Midland Nature Preserve Project (“Project”).

#### **II. Project Location and Current Conditions**

The Project is located on three tracts of land in Midland and Bay Counties in Michigan and designated as A, B, and C (as illustrated in Figure 1) (the “Property”). The Property is currently owned by Dow and is located approximately 3 miles north of the Tittabawassee River. Tract A is approximately 620 acres in area and predominantly forested, along with over 100 acres of farmland and early successional shrub-scrub. Tract B is approximately 165 acres in area and predominantly farmland. Tract C is approximately 675 acres in area and predominantly farmland, though narrow forested buffer strips are interspersed throughout.

#### **III. Project Requirements**

Dow shall implement all requirements described below in this SOW in accordance with applicable provisions of the NRD Restoration Project Schedules in Appendix Q and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The project requirements are:

- A.** Protect in perpetuity all 1460 acres of the Property through a conservation easement or a similar recordable conservation instrument that is consistent with Appendix H (Agreement for Conservation Easement) and enforceable by the Trustees.
- B.** Convert existing agricultural land on the three Tracts (a total of approximately 940 acres) into natural habitat (“Restoration Area”) by planting and maintaining vegetation, controlling invasive vegetation, and, where feasible, restoring hydrologic connectivity (as described in Sections IV and V.A.). The Restoration Area will be made up of the following:

- Approximately 200 acres of wetlands (“Wetland Restoration Area”).
  - Approximately 740 acres of other natural habitat (“Habitat Restoration Area”). Where supported by existing conditions (e.g. topography, hydrology, soils and climate), wetland restoration will be prioritized on the approximately 740 acres. Except for rendering drainage tiles inoperable to the extent feasible and consistent with Sections IV.B and V.A below, Dow shall not be required by this SOW to make changes to topography or hydrology for these additional discretionary wetlands.
- C.** Create natural resource-related recreational amenities at Tracts A and C that allow public access to the Greater Midland Nature Preserve, through construction of approximately 4 to 6 miles of nature trails, public access parking, and informational signage (i.e., maps and educational information). Nature trails will be Rural and Roaded Natural or Semiprimitive as defined within the Nature Trail Guidelines (Appendix S of the Consent Decree). Figure 1 provides a conceptual illustration of these amenities and where they might be located, though final decisions will be made with the approval of the Final Design and Implementation Plan.
- D.** Monitoring and maintenance in accordance with Section VI.

#### **IV. Environmental Characterization**

To support the design and implementation plans (described below in Section V) and establish existing conditions, Dow shall perform an Environmental Characterization on the Property. The Environmental Characterization shall consist of the following elements:

##### **A. Soil**

1. Conduct an assessment of soil types to inform the design and implementation plans for the Restoration Area on each Tract and to define the location and approximate areal extent of portions of the Property that are suitable for wetland restoration and areas that are suitable for other natural habitat restoration.

2. Conduct due diligence, including an All Appropriate Inquiry (“AAI”) Phase I Environmental Site Assessment (as described in ASTM Practice E 1527-13) on the Property (Tracts A, B, and C).
  - a. If necessary based on the Phase I AAI results, conduct appropriate Phase II sampling to complete the AAI.
3. Submit to the Trustees for approval a sampling plan for persistent pesticides in the agricultural fields.
4. Conduct a field assessment to identify unique topographic/physiographic features within Tracts A and C of the Property that may inform design and implementation of recreational amenities (e.g. trails, public access parking, and outreach-related signage).

## **B. Hydrology**

1. Obtain topographic survey information, request relevant records from the County Drain Commission, and conduct field assessments to identify any existing drainage structures (e.g., tiles), to evaluate the feasibility of establishing improved hydrologic connectivity on the Property, e.g., through rendering existing drain tiles inoperable or altering other structures that may currently alter natural hydrology conditions.
2. Verify that hydrologic restoration will not negatively impact adjacent parcels. Work with the County Drain Commissioner as needed to make this determination.

## **C. Vegetation**

1. Conduct an initial Floristic Quality Assessment (“FQA”) (Herman et al. 2001<sup>1</sup>) during the growing season in the Restoration Areas on the Property. For agriculture areas, FQA results from another agricultural area being restored pursuant to the Consent Decree can be used (note: we would

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<sup>1</sup> Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodovich, and K. P. Gardiner. 2001. Floristic Quality Assessment with Wetland Categories and Examples of Computer Applications for the State of Michigan – Revised, 2nd Edition. Michigan Department of Natural Resources, Wildlife, Natural Heritage Program. Lansing, MI. 19 pp. + Appendices.  
<http://www.michigandnr.com/publications/pdfs/HuntingWildlifeHabitat/FQA.pdf>

expect that the FQA in all agricultural areas would result in a similar Floristic Quality Index ("FQI")). This is to identify and evaluate existing vegetation and determine percent cover of invasive species for different habitat types or other potential future monitoring units.

2. Establish standardized photo points to record existing conditions for comparison during monitoring efforts in the Restoration Areas.

#### **D. Environmental Characterization Report**

1. Dow shall provide the results of the Environmental Characterization in a report for Trustee review. Development of the Preliminary Design Plan may proceed during the Trustee review of this report.

### **v. Design and Implementation**

Dow shall prepare and submit to the Trustees for approval a Preliminary Design Plan, Final Design and Implementation Plan, and a Construction Completion Report. The design and implementation plans shall provide a detailed description of the restoration activities and recreational enhancements to implement the elements described in Section III (Project Requirements). A general summary of each document is provided below.

#### **A. Preliminary Design Plan**

Dow shall submit a Preliminary Design Plan, including 30% design drawings, to the Trustees for review and written approval. Upon receiving written approval by the Trustees, Dow shall prepare the required permit applications to be submitted to the appropriate regulatory agencies. Dow may submit permit applications prior to Trustee approval of the Preliminary Design Plan if Dow obtains written approval from the Trustees for such earlier submission.

The Preliminary Design Plan shall include preliminary plans for implementing the elements in Section III (Project Requirements), above, and plans for the following elements:

1. Site stabilization or soil erosion measures.
2. Establishing diverse native vegetation species through seeding or planting (including proposed species, densities, and quantities) or using the natural seed bed when possible and taking into account probable future climate

conditions (e.g., including native desirable plants at the margin of their current range but better able to survive with longer, drier summers and other predicted changes).

3. Reducing the potential to introduce invasive vegetation in each Restoration Area by following the decontamination procedures described in the State of Michigan's Policy Number QOL-2-2014<sup>2</sup>
4. Proposed locations and approximate areal extent of each natural habitat type, including wetlands, based on the identified soil types and current and proposed topography and hydrology.
5. Proposed Contingency Measures to address concerns, if any, associated with contaminants.
6. Improving hydraulic connectivity within the tracts of the Property, where feasible:
  - a. Considering probable effects of climate change (e.g., increased frequency of heavy rainfall events year-round and increased frequency of summer droughts).
  - b. Considering alterations of existing drainage ditches and drainage structures (e.g., tiles) to the extent that proposed alterations are practicable and can be approved by the County Drain Commissioner.
7. Establishing user access, including parking and developing trails on Tracts A and C while taking into account any unique features of the Property.
8. Management structure and proposed contacts including:
  - a. Names, addresses, email addresses, phone numbers (including cell) for Dow project representatives.
  - b. Company names for proposed prime and subcontractor(s).
9. Schedule of activities:
  - a. Final design submittal
  - b. Trustee written approval
  - c. Permitting

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<sup>2</sup> [http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination\\_476846\\_7.pdf](http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination_476846_7.pdf). Accessed November 1, 2016.

- d. Construction
- e. Seeding and planting

## **B. Final Design and Implementation Plan**

After receipt of Trustee written approval for the Preliminary Design Plan, Dow shall provide the Trustees with the Final Design and Implementation Plan for review and written approval. The Final Design and Implementation Plan shall include the final plans for the required elements within the Preliminary Design Plan as well as the following:

- Additional detail on implementation steps, sequencing, and schedule
- Draft or submitted permit application(s)
- Initial plans to promote survival of vegetation during or after implementation as needed, such as watering, mulching, mowing, weeding, soil amendments, invasive species removal, and/or herbivore exclusion.

## **C. Implementation**

After receipt of Trustee written approval for the Final Design and Implementation Plan, Dow shall implement the Project in accordance with the approved Final Design and Implementation Plan and schedule.

## **D. Construction Completion Report**

Upon completing construction of the Project, Dow shall submit a Construction Completion Report to the Trustees for review and written approval. The Construction Completion Report shall document the final actions taken to implement the elements in Section III (Project Requirements) and in Section V.

The Construction Completion Report shall include the following:

- As-built drawings
- Any deviations from the Final Design and Implementation Plan and an explanation of the reasons for the deviation

- Documentation of any hydrologic alterations on the Property, including elevation data and the location of any remaining drainage ditches or structures
- Planting details including species and density of plants

Within 60 days after submission of the Construction Completion Report, the Trustees shall provide written notification indicating if the Construction Completion Report is approved and the construction phase is considered complete.

## **VI. Monitoring and Maintenance Plan**

Dow shall develop and submit to Trustees for written approval a Monitoring and Maintenance Plan. The Monitoring and Maintenance Plan shall include a detailed description of how Dow will perform monitoring activities to show that Performance Standards, as set forth below, are met. The monitoring period extends from the date of construction completion as recorded in the approved Construction Completion Report until approval of the Project Completion Report. The Monitoring and Maintenance Plan shall also detail: goals, monitoring methods, monitoring frequency and duration, and reporting requirements for the monitoring period.

### **A. Monitoring and Maintenance Goals**

Post-construction performance shall be measured through Monitoring and Maintenance activities. The goals of the Monitoring and Maintenance Plan are to determine (1) if restoration has achieved Performance Standards, (2) if contingency measures are needed, and (3) if contingency measures (if any) are successful in meeting Performance Standards.

### **B. Performance Standards and Contingency Measures**

Dow shall meet the following Performance Standards for restoration and recreational amenities. If necessary to meet Performance Standards, Dow shall propose Contingency Measures for Trustee review and written approval as set forth below and pursuant to Paragraph 8 of the Consent Decree, including any supplemental monitoring requirements applicable to the proposed Contingency Measures. Such Contingency Measures may include those listed below or Dow may propose additional or alternative Contingency Measures.

## **1. Environmental Characterization**

- a. Performance Standard: Soils should not have contamination concentrations that exceed attached thresholds or other requirements for planned future use.
  - 1) Contingency Measure: If soil contamination exceeds attached thresholds for persistent pesticides (Attachment 1) or other requirements for future planned use, Dow shall propose actions consistent with federal and state requirements or Dow may propose to exclude one or more areas from the restoration, in which case Dow shall propose alternate restoration areas, activities or projects in order to offset the exclusion. Alternate restoration areas, activities or projects shall provide ecological benefits at least as great as the benefits associated with the excluded areas.

## **2. Habitat Restoration**

- a. Performance Standard: Habitat restoration of agricultural land (approximately 940 acres) that includes the Wetlands Restoration Area and the Habitat Restoration Area. For purposes of this SOW, “wetlands” are defined as areas having hydric soils, wetland hydrology, and wetland vegetation consistent with the criteria in the Army Corps of Engineers’ Wetland Delineation Manual.
  - 1) Contingency Measure: To the extent that habitat restoration is not practicable at this Property or a portion of this Property, due to unforeseen conditions, Dow shall propose other restoration efforts either at this Property or at another location agreed to by the Trustees in writing. Such alternatives or supplemental restoration project shall provide ecological benefits at least as great as the benefits associated with the restoration planned but not completed under this SOW.
    - If Contingency Measures need to be implemented to improve hydraulic conditions to meet the 200 acres of wetlands, additional monitoring time may be required with respect to the area subject to the Contingency Measures to assure the wetland is established.



- b. Performance Standard: Demonstration that soils do not show evidence of instability due to erosion.
- 1) Contingency Measure: During the restoration efforts and until vegetation is established, soil erosion shall be monitored and controlled per the requirements of the Soil Erosion and Sediment Control Permit. If, during the restoration implementation, erosion occurs within the Restoration Areas, best management practices for soil erosion and sedimentation control shall be employed. Annual visual inspections of the Restoration Areas shall be performed over the monitoring period to ensure best management practices are sufficient and no new erosion is occurring.
- c. Performance Standard: If any existing drainage structures are removed and/or any drainage ditches altered, confirm that the alterations remain intact.
- 1) Contingency Measure: Reevaluate design and make necessary modifications.
- d. Performance Standard: Establishment of stable or increasing native vegetation cover over time in both the Wetlands Restoration Area and the Habitat Restoration Area through seeding and planting of native vegetation species in accordance with the approved Final Design and Implementation Plan, with the following goals:
- Coverage by native vegetation of 40% to 50% or more within 3 years after construction is complete
  - Coverage by native vegetation of no less than 65% within 5 years after construction is complete, with invasive species comprising less than 10% coverage.
  - Increase in FQI and mean coefficient of conservatism (Mean C) in sampled quadrants with an FQI target of at least 22 for non-wetland restoration and an adjusted FQI target of at least 28 for wetland restoration and a Mean C of at least 3.5 (with FQI and Mean C as defined in Herman et al., 2001). If an area does not meet targets for FQI or Mean C, the Trustees could determine that the restored area meets these Performance Standards based on the

overall habitat quality as intended by the Final Design and Implementation Plan.

1) Contingency Measure: If native vegetation is not meeting or expected to meet the 3 and 5 year goals stated above, Contingency Measures shall be proposed and implemented and may include the following:

- Areas may be replanted with same or alternate species, or
- Operational measures such as watering, mulching, weeding, soil amendments and/or herbivore exclusion may be used.

e. Performance Standard: Invasive vegetation shall be managed within the Restoration Areas to achieve a target of approximately 10% or less coverage. *Phragmites australis* control shall be initiated as soon as practical after detection occurs.

1) Contingency Measure: If non-native or invasive vegetation is above 10% coverage, control measures (chemical, mechanical, or biological means) will be implemented.

### **3. Recreational Amenities**

a. Performance Standard: User access, parking, and recreational trails as identified within the Final Design and Implementation Plan are constructed and maintained in accordance with the Final Design and Implementation Plan.

## **C. Monitoring Methods and Frequencies**

### **1. Monitoring Methods**

Monitoring methods for the monitoring period shall be documented as standard operating procedures attached to the Monitoring and Maintenance Plan. Monitoring methods must be sufficient to evaluate progress toward attainment of Performance Standards and include FQA survey methods and standardized photo points that were part of the environmental characterization.

### **2. Monitoring Frequencies**

The monitoring period shall take place according to the NRD Restoration Project Schedules, attached as Appendix Q in the Consent Decree.

During this period, monitoring shall take place at no less than a semi-annual basis to ensure that desired vegetation has become established and invasive vegetation is adequately controlled, where applicable, and that recreational amenities and access are maintained. The monitoring events will be performed at the beginning and end of the growing season (spring and late summer). The spring monitoring event will be used to trigger maintenance activities prior to the growing season. Results of the late summer monitoring events shall be compared against Performance Standards to determine if project goals are being met, the Monitoring and Maintenance Plan is sufficient, and/or Contingency Measures are needed.

**D. Monitoring and Maintenance Report**

Dow shall submit an annual Monitoring and Maintenance Report to the Trustees by January 31st of the year following each year that monitoring activities are conducted per the SOW. Each Monitoring and Maintenance Report shall include:

- Methods used for monitoring and maintenance.
- Results of any Property evaluations.
- Discussion of results and how results compare against Performance Standards.
- Recommended contingency measures, if any.
- Appendices to include data, maps, and photographs.

**E. Project Completion Report**

Dow shall submit a Project Completion Report to the Trustees for review and written approval. The Project Completion Report shall summarize all maintenance and monitoring activities as well as any other findings that occurred during the entire monitoring period. The Project Completion Report shall also provide documentation that a conservation easement or a similar recordable conservation instrument listed in III.A has been recorded and identify any other entity that has accepted ownership of the Property per Paragraphs 3 and 7 of the Consent Decree.

## **VII. Deliverables Summary**

This SOW includes the following deliverables each being summarized in the above sections:

- Environmental Characterization Report (Section IV)
- Preliminary Design Plan (Section V.A)
- Final Design and Implementation Plan (Section V.B)
- Construction Completion Report (Section V.C)
- Monitoring and Maintenance Plan (Section VI)
- Monitoring and Maintenance Reports (Section VI.D)
- Project Completion Report (Section VI.E)

## **VIII. NRD Restoration Project Schedules**

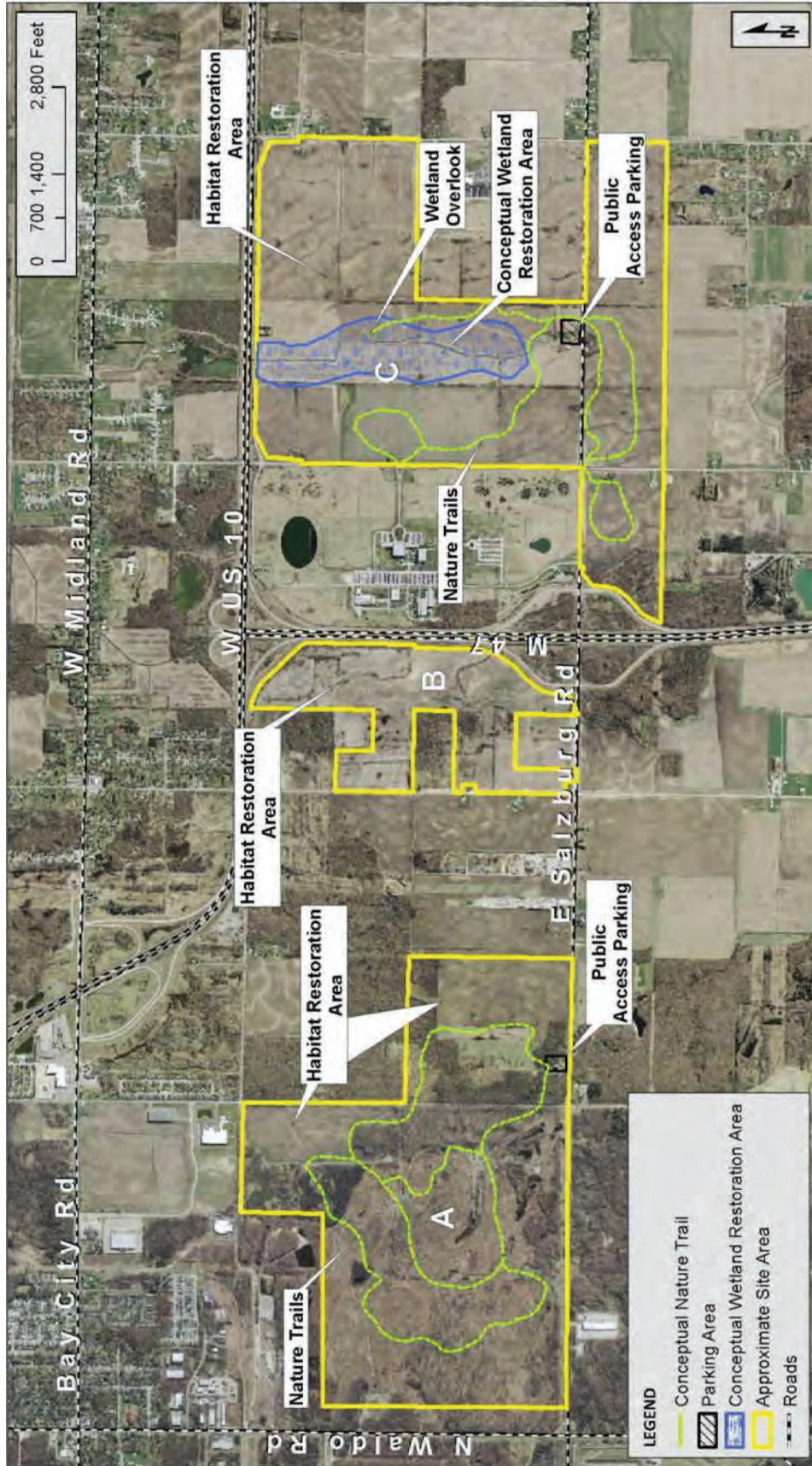
Dow shall complete all activities and submit all deliverables for the Project in accordance with the schedule set forth or developed pursuant to the NRD Restoration Project Schedules, which is attached to the Consent Decree as Appendix Q, and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The NRD Restoration Project Schedules sets forth the timeline for major activities for each of the Dow-implemented Restoration Projects identified in Section V of the Consent Decree, including Restoration Progress Meetings and the deadlines for all deliverables. Dow may submit reasonable and prudent modifications to the NRD Restoration Project Schedules to the Trustees for written approval, as provided for in Paragraph 7 of the Consent Decree.

## **IX. Contact Information**

Dow shall submit all Project deliverables via electronic mail to Trustees in accordance with Section XXIII (Notice) of the Consent Decree. In addition, the Trustees may identify a reasonable number of contacts to receive hard copies of any deliverables.



Figure 1. Location and conceptual plan for Greater Midland Nature Preserve Restoration Project



**Attachment 1. Persistent Pesticide Screening Criteria for Wetland Restoration**

Compiled by Lisa L. Williams, U.S. Fish and Wildlife Service, East Lansing, MI  
December, 2017

**Basis**

Persistent, bioaccumulative pesticides may be present in agricultural soils. When areas that have previously been in agriculture are converted to wetlands or open water habitats, benthic invertebrates and fish are exposed to those pesticides which can then biomagnify in the aquatic foodweb to a greater extent than in a terrestrial foodweb. For purposes of this project, agricultural soils will be analyzed for persistent pesticides and organic carbon content, and pesticide concentrations will be compared to sediment screening values compiled from several sources.

The Method Limit of Detection (MLOD) is as described by the Environmental Protection Agency in 40 CFR Part 136, Appendix B and required by contract labs for the United States Fish and Wildlife Service.

**Sediment Screening Values**

All concentrations are in  $\mu\text{g}/\text{kg}$  dry weight (dw) and criteria from different sources are adjusted to a consistent 2% organic carbon (OC) content. Concentrations in soils will need to be similarly adjusted to make a direct comparison to these concentrations (i.e., divide the dry weight concentration in a sample by the fraction of OC in that sample and then multiply by 0.02).

<b>Pesticide</b>	<b>Proposed Soil to Sediment Value for Emergent Marsh, <math>\mu\text{g}/\text{kg}</math> dw</b>	<b>Proposed Soil to Sediment Value for Open Water, <math>\mu\text{g}/\text{kg}</math> dw</b>	<b>Source</b>
Total DDT compounds	25	25	MLOD
DDT equivalents	213	89	(3)
p,p'-DDE	34	34	(1)
p,p'-DDD	33	33	(1)
p,p'-DDT	67	67	(1)
o,p'-DDE	summed with p,p'	summed with p,p'	(1)
o,p'-DDD	summed with p,p'	summed with p,p'	(1)
o,p'-DDT	summed with p,p'	summed with p,p'	(1)

<b>Pesticide</b>	<b>Proposed Soil to Sediment Value for Emergent Marsh, µg/kg dw</b>	<b>Proposed Soil to Sediment Value for Open Water, µg/kg dw</b>	<b>Source</b>
HCB	305	305	(4)
alpha BHC	106	106	(1)
beta BHC	216	216	(1)
gamma BHC (lindane)	10	10	MLOD
"BHC" (sum of isomers)	124	124	(1)
aldrin	82	82	(1)
dieldrin	64	64	(1)
heptaclor	22,857	22,857	(3)
heptaclor epoxide	19	19	(1)
oxychlordane	408	408	(4)
alpha chlordane	3,687	733	(4)
gamma chlordane	7,143	1,843	(4)
"chlordane" (sum of isomers)	21	21	(1)
endrin	70	70	(4)
toxaphene	50	50	MLOD

(1) Wisconsin Department of Natural Resources, 2003. *Consensus-Based Sediment Quality Guidelines Recommendations for Use & Application, Interim Guidance*. 35 pp.

(2) Minnesota Pollution Control Agency, 2007. *Guidance for the Use and Application of Sediment Quality Targets for the Protection of Sediment-Dwelling Organisms in Minnesota*. 64 pp.

(3) Coveney, M.F. and R. Conrow, 2016. *Pesticide Studies and Risk Assessments on the Lake Apopka North Shore, Technical Memorandum 57*. St. Johns River Water Management District. 42 pp.

(4) New York State Department of Environmental Conservation, 2014. *Screening and Assessment of Contaminated Sediment*. 99 pp.

(5) Crane, J. L., 2017. Ambient sediment quality conditions in Minnesota lakes, USA: Effects of watershed parameters and aquatic health implications. *Science of the Total Environment* 607-608: 1320-1338.



**APPENDIX D**  
**Statement of Work**  
**Eagle Ridge Project**

- I. Purpose**
- II. Project Location and Current Conditions**
- III. Project Requirements**
- IV. Environmental Characterization**
  - A. Soil
  - B. Hydrology
  - C. Vegetation
  - D. Environmental Characterization Report
- V. Design and Implementation**
  - A. Preliminary Design Plan
  - B. Final Design and Implementation Plan
  - C. Implementation
  - D. Construction Completion Report
- VI. Monitoring and Maintenance Plan**
  - A. Monitoring and Maintenance Goals
  - B. Performance Standards and Contingency Measures
    - 1. Environmental Characterization
    - 2. Habitat Restoration
    - 3. Recreational Amenities
  - C. Monitoring Methods and Frequencies
    - 1. Monitoring Methods
    - 2. Monitoring Frequencies
  - D. Monitoring and Maintenance Report
  - E. Project Completion Report

**VII. Additional Project Elements**

- A. Hydrologic Connectivity Supplemental Discretionary Work
- B. ADA Access and Parking Supplemental Discretionary Work
- C. Invasive Species Control Supplemental Discretionary Work

**VIII. Deliverables Summary**

**IX. NRD Restoration Project Schedules**

**X. Contact Information**

## **Statement of Work**

### **Eagle Ridge Project**

#### **I. Purpose**

The purpose of this Statement of Work (“SOW”) is to describe the requirements for the Eagle Ridge Project (“Project”).

#### **II. Project Location and Current Conditions**

The Project is located adjacent to both commercial development and residential communities in Midland, Michigan. The land for the Project consists of approximately 140 acres currently owned by Dow and is located east of Waldo Road, south of Ashman Road, north of Hancock and Ridgecrest Roads, and west of the City of Midland’s Stratford Park (the “Property”, as illustrated in Figure 1). In addition to work on the Property, the Project also includes a pollinator plot on 2 acres of land adjacent to the east boundary of the Property on a separate parcel of land currently owned by Dow<sup>1</sup>. The Property is located within the Saginaw Lowlands physiographic region and includes topography and vegetation unique to this region, such as remnant Lake Saginaw dunes from the Pleistocene Era and glacial moraines. As a result, elevations vary between approximately 654 and 690 feet above sea level. The Property provides important natural features and topographic variation proximate to the urban environment of the City of Midland.

#### **III. Project Requirements**

Dow shall implement all requirements described below in this SOW in accordance with applicable provisions of the NRD Restoration Project Schedules in Appendix Q and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The project requirements are:

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<sup>1</sup> This separate parcel of land is currently owned by Dow with the City of Midland having an easement on it, though in the future it may be owned by the City of Midland with Dow retaining an easement to maintain the pollinator plot.

- A.** Protect in perpetuity all 140 acres of the Property through a conservation easement or a similar recordable conservation instrument<sup>2</sup> that is consistent with Appendix H (Agreement for Conservation Easement) and enforceable by the Trustees.
- B.** Removal of a portion of an abandoned gravel road and associated fill that bisects the existing wetland in the Northern Wetland Area as depicted on Figure 1 (“Road and Fill Removal”) to restore the hydrologic connection between the two parts of the wetland. Restore disturbed areas with native vegetation related to the hydrologic connectivity work.
- C.** Installation of 10 to 15 habitat boxes consisting of bird nest boxes, wood duck boxes, and/or bat roost boxes.
- D.** Seeding and planting of pollinator species in full sun area(s) on at least one acre and no more than 2 acres required.
- E.** Removal/control of invasive species to meet the Performance Standards described herein in the three “Habitat Restoration Areas” as described below with the approximate boundaries depicted on Figure 1. The Project’s Habitat Restoration Areas are the following:
  - 1. Northern Wetland Area: the wetland area at the north end of the Property as depicted in Figure 1 with an approximate acreage of 0.54.
    - Requirement: Removal/control of *Phragmites australis* will be performed within the wetland footprint. Buckthorn and Autumn Olive will be removed/controlled along the existing trail system that bisects the wetland.
  - 2. Sand Mining Area: the sand mining area west of the Northern Wetland Area is depicted on Figure 1 with an approximate acreage 0.45.
    - Requirement: Removal/control of Autumn Olive and Buckthorn within the Sand Mining Area. The remaining understory vegetation will be left as is and no other vegetation restoration will be implemented in this area.

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<sup>2</sup> This conservation easement/instrument for the Property shall reference the Michigan Department of Environmental Quality (“MDEQ”) wetland mitigation conservation easement (MDEQ Permit File Number 02-56-0036-P, Midland County Register of Deeds Liber 1405, pages 70-79) already in place on approximately 5.24 acres of the approximately 140 acres.

3. Mitigation Sites A and B: the two wetland mitigation sites present on the Property (identified in Figure 2) that together are already under a Michigan Department of Environmental Quality ("MDEQ") Conservation Easement. (See Footnote 1 and note that any work within the MDEQ Conservation Easement Areas requires separate authorization from the Michigan Department of Environment, Great Lakes, and Energy ("EGLE", formerly known as the MDEQ)).

- Requirement: Removal/control of invasive species within this area.

- F. Create natural resource-related recreational amenities that allow public access to the Property as listed below. Figure 1 provides a conceptual illustrations of these amenities and where they might be located, though final decisions will be made with the approval of the Final Design and Implementation Plan.

1. Construction or enhancement of at least 1.5 and up to 2.5 miles of nature trails on the Property. Nature trails will be Rural and Roaded Natural or Semiprimitive as defined within the Nature Trail Guidelines (Appendix S to the Consent Decree).
2. Construction of a trail to connect the nature trails to the existing Stratford parking area,
3. Construction of an Americans with Disabilities Act of 1990, ("ADA") compliant boardwalk/viewing area that provides access and viewing in the Northern Wetland Area
4. Installation of five to ten benches along the managed trails, and
5. Installation of signage to support interpretive education including the unique topographic features of the property within the urban environment of the City of Midland.

- G. Monitoring and maintenance in accordance with Section VI.

#### **IV. Environmental Characterization**

To support the design and implementation plans (described below in Section V) and establish existing conditions, Dow shall perform an Environmental Characterization on the Property. The Environmental Characterization shall consist of the following elements:

**A. Soil**

1. Conduct due diligence, including an All Appropriate Inquiry (“AAI”) Phase I Environmental Site Assessment (as described in ASTM Practice E 1527-13) on the Property.
  - a. If necessary based on the Phase I AAI results, conduct appropriate Phase II sampling to complete the AAI.
2. Conduct a field assessment, as determined necessary by Dow, to support the Road and Fill Removal in the Northern Wetland Area to restore the hydrologic connection between the two parts of the wetland.
3. Conduct a field assessment to identify unique topographic/physiographic features within the Property that may inform design and implementation of recreational amenities (trails, benches, and outreach-related signage).

**B. Hydrology**

1. Obtain topographic survey information, request relevant records from the County Drain Commission, and conduct field assessments to identify any existing drainage structures (e.g., drainage ditches, tiles).

**C. Vegetation**

1. Identify and inventory invasive species to be removed and controlled within each Habitat Restoration Area (as described above).
2. Establish standardized photo points to record existing conditions for comparison during monitoring efforts in each Habitat Restoration Area.

**D. Environmental Characterization Report**

1. Dow shall provide the results of the Environmental Characterization in a report for Trustee review. Development of the Preliminary Design Plan may proceed during the Trustee review of this report.

**V. Design and Implementation**

Dow shall prepare and submit to the Trustees for approval, a Preliminary Design Plan, Final Design and Implementation Plan, and a Construction Completion Report. The design and implementation plans shall provide a detailed description of the restoration activities and recreational enhancements to implement the

elements described in Section III (Project Requirements). A general summary of each document is provided below.

#### **A. Preliminary Design Plan**

Dow shall submit a Preliminary Design Plan, including 30% design drawings, to the Trustees for review and written approval. Upon receiving written approval by the Trustees, Dow shall prepare the required permit applications to be submitted to the appropriate regulatory agencies. Dow may submit permit applications prior to Trustee approval of the Preliminary Design Plan if Dow obtains written approval from the Trustees for such earlier submission.

The Preliminary Design Plan shall include preliminary plans for implementing the elements in Section III (Project Requirements), above, and plans for the following elements:

1. Site stabilization or soil erosion measures.
2. Establishing appropriate native vegetation species where soil is disturbed during the Road and Fill Removal through seeding or planting including proposed species, densities, and quantities
3. Reducing potential to introduce invasive vegetation in the Habitat Restoration Areas by following decontamination procedures described in the State of Michigan's Quality of Life Policy Number QOL-2-2014<sup>3</sup>.
4. Establishing user access and developing trails or improving existing trails while taking into account any unique features of the Property. This will also include an inventory and map of existing trails and potential access points for unauthorized motor vehicles that will need to be addressed through signage or appropriate barricades, as well as an assessment of trail and natural resource conditions (*e.g.*, erosion, resource damage) associated with the existing trails.
5. At Dow's discretion, additional actions may be included as described in Section VII.

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<sup>3</sup> [http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination\\_476846\\_7.pdf](http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination_476846_7.pdf) Accessed November 1, 2016.

6. Management structure and proposed contacts including:
  - a. Names, addresses, email addresses, phone numbers (including cell) for Dow project representatives
  - b. Company names for proposed prime and subcontractor(s)
7. Schedule of activities:
  - a. Final design submittal
  - b. Trustee written approval
  - c. Permitting (including EGLE authorization for any work in the MDEQ/EGLE Conservation Easement areas)
  - d. Construction
  - e. Seeding and planting

**B. Final Design and Implementation Plan**

After receipt of Trustee written approval for the Preliminary Design Plan, Dow shall provide the Trustees with the Final Design and Implementation Plan for review and written approval. The Final Design and Implementation Plan shall include the final plans for the required elements within the Preliminary Design Plan, as well as the following:

- Additional detail on implementation steps, sequencing, and schedule
- Draft or submitted permit application(s)
- Initial plans to promote survival of vegetation during or after implementation as needed, such as watering, mulching, mowing, weeding, soil amendments, invasive species removal, and/or herbivore exclusion.

**C. Implementation**

After receipt of Trustee written approval for the Final Design and Implementation Plan, Dow shall implement the Project in accordance with the approved Final Design and Implementation Plan and schedule.



#### **D. Construction Completion Report**

Upon completing construction of the Project, Dow shall submit a Construction Completion Report to the Trustees for review and written approval per the NRD Restoration Project Schedules. The Construction Completion Report shall document the final actions taken to implement the elements in Section III (Project Requirements) and in Section V.

The Construction Completion Report shall include the following:

- As-built drawings
- Any deviations from the Final Design and Implementation Plan and an explanation of the reasons for the deviation
- Documentation of any hydrologic alterations on the Property, including elevation data and the location of any remaining drainage ditches or structures
- Planting details including species and density of plants

Within 60 days after submission of the Construction Completion Report, the Trustees shall provide written notification indicating if the Construction Completion Report is approved and the construction phase is considered complete.

#### **VI. Monitoring and Maintenance Plan**

Dow shall develop and submit to Trustees for written approval a Monitoring and Maintenance Plan. The Monitoring and Maintenance Plan shall include a detailed description of how Dow will perform monitoring activities to show that Performance Standards, as set forth below, are met. The monitoring period extends from the date of construction completion as recorded in the approved Construction Completion Report until the approval of the Project Completion Report. The Monitoring and Maintenance Plan shall also detail: goals, monitoring methods, monitoring frequency and duration, and reporting requirements for the monitoring period.

## **A. Monitoring and Maintenance Goals**

Post-construction performance shall be measured through Monitoring and Maintenance activities. The goals of the Monitoring and Maintenance Plan are to determine (1) if restoration has achieved Performance Standards, (2) if contingency measures are needed, and (3) if contingency measures (if any) are successful in meeting Performance Standards.

## **B. Performance Standards and Contingency Measures**

Dow shall meet the following Performance Standards for restoration and recreational amenities. If necessary to meet Performance Standards, Dow shall propose Contingency Measures for Trustee review and written approvals set forth below and pursuant to Paragraph 8 of the Consent Decree, including any supplemental monitoring requirements applicable to the proposed Contingency Measures. Such Contingency Measures may include those listed below or Dow may propose additional or alternative Contingency Measures.

### **1. Environmental Characterization**

- a. Performance Standard: The AAI results demonstrate the property meets requirements for planned future use.
  - 1) Contingency Measure: If soil contamination does not meet requirements for planned future use, Dow shall propose actions consistent with federal and state requirements or Dow may propose to exclude one or more areas from the restoration, in which case Dow shall propose alternate restoration areas, activities or projects in order to offset the exclusion. Alternate restoration areas, activities or projects shall provide ecological benefits at least as great as the benefits associated with the excluded areas.

### **2. Habitat Restoration**

- a. Performance Standard: If any existing drainage structures are removed and/or any drainage ditches altered as part of Road and Fill Removal in the Northern Wetland Area, confirm that the alterations remain intact.

- 1) Contingency Measure – Re-evaluate design and make necessary modifications.
- b. Performance Standard: Within the Northern Wetland Area that is restored from the disturbance of the Road and Rill Removal, vegetation dominated by native species shall be established.
  - 1) Contingency Measure – If native vegetation is not established Contingency Measures shall be proposed and implemented and may include the following:
    - Area may be replanted with same or alternate species, or
    - Operational measures such as watering, mulching, weeding, soil amendments and/or herbivore exclusion may be used.
- c. Performance Standard: As described above, invasive vegetation shall be managed within the three Habitat Restoration Areas per the following:
  - *Phragmites australis* control shall be initiated as soon as practical after detection occurs within the Habitat Restoration Areas.
  - Removal of Autumn Olive and Buckthorn along the trail that bisects the Northern Wetland Area and in the Sand Mining Area shall achieve less than 10% coverage of these invasive species.
  - Control of invasive species in the Mitigation Sites A&B shall achieve a target of less than 10% coverage of invasive species.
  - 1) Contingency Measure – If any of the above Performance Standards for invasive vegetation is not met for one or more of the Habitat Restoration Areas, control measures (chemical, mechanical, or biological means) will be implemented.

### **3. Recreational Amenities**

- a. Performance Standard: User access, parking, and recreational trails as identified within the Final Design and Implementation Plan shall be constructed and maintained in accordance with the Final Design and Implementation Plan.

- b. Performance Standard: The boardwalk/viewing area that will be provided, per Section III, in the Northern Wetland Area shall comply with appropriate federal and state standards for ADA compliant facilities, as applicable, and in accordance with the Final Design and Implementation Plan.

**C. Monitoring Methods and Frequencies**

**1. Monitoring Methods**

Monitoring methods for the monitoring period shall be documented as standard operating procedures attached to the Monitoring and Maintenance Plan. Monitoring methods must be sufficient to evaluate progress toward attainment of Performance Standards.

**2. Monitoring Frequencies**

The monitoring period shall take place according to the NRD Restoration Project Schedules, attached as Appendix Q in the Consent Decree. During this period, monitoring shall take place at no less than a semi-annual basis to ensure that desired vegetation has become established and invasive vegetation is adequately controlled, where applicable, and that recreational amenities and access are maintained. The monitoring events will be performed at the beginning and end of the growing season (spring and late summer). The spring monitoring event will be used to trigger maintenance activities prior to the growing season. Results of the late summer monitoring events shall be compared against Performance Standards to determine if project goals are being met, the Monitoring and Maintenance Plan is sufficient, and/or Contingency Measures are needed.

**D. Monitoring and Maintenance Report**

Dow shall submit an annual Monitoring and Maintenance Report to the Trustees by January 31st of the year following each year that monitoring activities are conducted per the SOW. Each Monitoring and Maintenance Report shall include:

- Methods used for monitoring and maintenance.
- Results of any Property evaluations.

- Discussion of results and how results compare against Performance Standards.
- Recommended contingency measures, if any.
- Appendices to include data, maps, and photographs.

#### **E. Project Completion Report**

Dow shall submit a Project Completion Report to the Trustees for review and written approval. The Project Completion Report shall summarize all maintenance and monitoring activities as well as any other findings that occurred during the entire monitoring period. The Project Completion Report shall also provide documentation that a conservation easement or a similar recordable conservation instrument listed in III.A has been recorded and identify any other entity that has accepted ownership of the Property per Paragraphs 3 and 7 of the Consent Decree.

### **VII. Additional Project Elements**

Dow may submit to the Trustees a written proposal to implement, on a voluntary basis, supplementary activities intended to enhance the value of the Project by (a) expanding wetland areas on the Property, and/or (b) constructing an ADA-compliant parking area to facilitate additional access to the Property, as detailed below, and/or (c) expanding the invasive control measures in/or along the periphery of any one or more of the three Habitat Restoration Areas. If Trustees approve the proposal for supplementary activities, Dow may proceed, at its sole discretion, to implement the supplementary activities consistent with the approved proposal; provided, however, that the supplementary activities will remain voluntary undertakings by Dow and not enforceable requirements under the Consent Decree or this Statement of Work.

#### **A. Hydrologic Connectivity Supplemental Discretionary Work**

In addition to the Road and Fill Removal, and based on the topographic survey, relevant records from the County Drain Commission, and field assessments to identify any existing drainage structures, Dow may determine the feasibility of establishing additional improved hydrologic connectivity on the Property and propose changes to improve hydrologic connectivity. As part of this optional determination, Dow will (1) evaluate potential negative effects of the alterations

on adjacent parcels, and (2) work with the County Drain Commissioner as needed as part of this evaluation.

#### **B. ADA Access and Parking Supplemental Discretionary Work**

In addition to the installation of ADA accessible boardwalk/viewing area in the Northern Wetland Area, Dow may include additional ADA access and parking at or near this area where feasible in accordance with this Section VII.

#### **C. Invasive Species Control Supplemental Discretionary Work**

In addition to the specific removal/control of invasive species for the Habitat Restoration Areas as defined above, Dow may include additional invasive species removal and control in/or along the periphery of the Habitat Restoration Areas in accordance with this Section VII.

### **VIII. Deliverables Summary**

This SOW includes the following deliverables each being summarized in the above sections:

- Environmental Characterization Report (Section IV)
- Preliminary Design Plan (Section V.A)
- Final Design and Implementation Plan (Section V.B)
- Construction Completion Report (Section V.D)
- Monitoring and Maintenance Plan (Section VI)
- Monitoring and Maintenance Reports (Section VI.D)
- Project Completion Report (Section VI.E)

### **IX. NRD Restoration Project Schedules**

Dow shall complete all activities and submit all deliverables for the Project in accordance with the schedule set forth or developed pursuant to the NRD Restoration Project Schedules, which is attached to the Consent Decree as Appendix Q, and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The NRD Restoration Project Schedules set forth the timeline for major activities for each of the Dow-implemented Restoration Projects identified in Section V of the Consent Decree, including Restoration Progress Meetings and the deadlines for all deliverables. Dow may submit reasonable and prudent

modifications to the NRD Restoration Project Schedules to the Trustees for written approval, as provided for in Paragraph 7 of the Consent Decree.

**X. Contact Information**

Dow shall submit all Project deliverables via electronic mail to Trustees in accordance with Section XXI (Notice) of the Consent Decree. In addition, the Trustees may identify a reasonable number of contacts to receive hard copies of any deliverables.

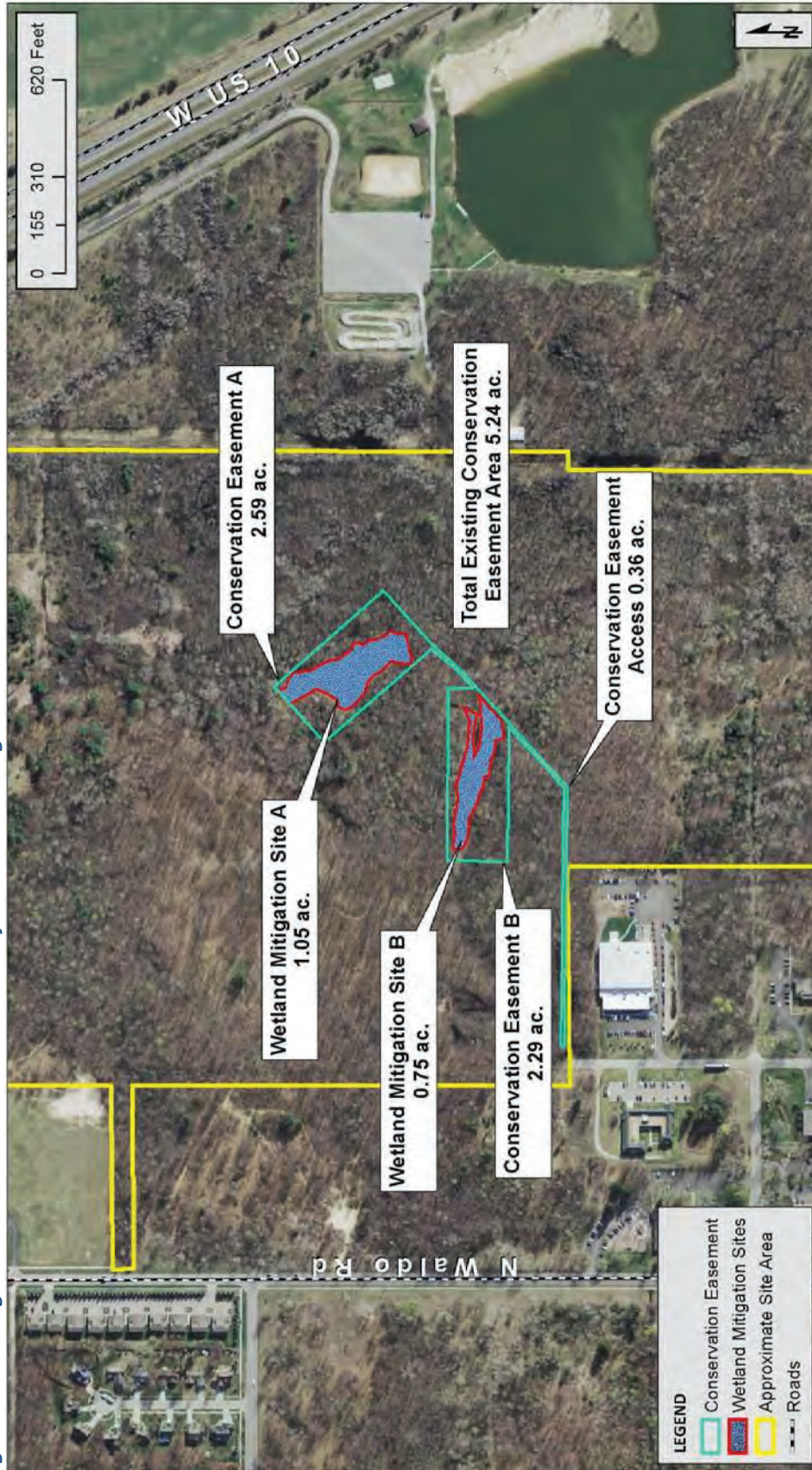


Figure 1. Location and conceptual plan for Eagle Ridge Project





Figure 2. Existing MDEQ conservation easements for wetland mitigation



**APPENDIX E**  
**Statement of Work**  
**Tittabawassee River Floodplain Restoration and Bike Trail Project**

- I. Purpose**
- II. Project Location and Current Conditions**
- III. Project Requirements**
- IV. Environmental Characterization**
  - A. Soil
  - B. Hydrology
  - C. Vegetation
  - D. Environmental Characterization Report
- V. Design and Implementation**
  - A. Preliminary Design Plan
  - B. Final Design and Implementation Plan
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- VI. Monitoring and Maintenance Plan**
  - A. Monitoring and Maintenance Goals
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  - C. Monitoring Methods and Frequencies
    - 1. Monitoring Methods
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  - D. Monitoring and Maintenance Report
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- VII. Deliverables Summary**
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## **Statement of Work**

### **Tittabawassee River Floodplain Restoration and Bike Trail Project**

#### **I. Purpose**

The purpose of this Statement of Work (“SOW”) is to describe the requirements for the Tittabawassee River Floodplain Restoration and Bike Trail Project (“Project”).

#### **II. Project Location and Current Conditions**

The Project is located within the Tittabawassee River Floodplain on a 490 acre parcel that is currently owned by Dow (the “Property”). The Property is adjacent to the Tittabawassee River and located in Midland and Saginaw County, Michigan (as illustrated in Figure 1). A portion of the Property is currently in agricultural use.

#### **III. Project Requirements**

Dow shall implement all requirements described below in this SOW in accordance with applicable provisions of the NRD Restoration Project Schedules in Appendix Q and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The project requirements are:

- A.** Protect in perpetuity all 490 acres of the Property through a conservation easement or similar recordable conservation instrument that is consistent with Appendix H (Agreement for Conservation Easement) and enforceable by all Trustees.
- B.** Convert existing agricultural land (approximately 175 acres) on the Property into natural habitat (“Restoration Area”) by planting and maintaining vegetation, controlling invasive vegetation, and, where feasible on the Property, restoring hydrologic connectivity (as described in Sections IV and V.A) across the floodplain. Where supported by existing topography, hydrology, soils and climate, wetland restoration shall be prioritized on the approximately 175 acres of existing agricultural land. Except for rendering drainage tiles inoperable to the extent feasible and consistent with Sections

IV.B and V.A below, Dow shall not be required by this SOW to make changes to topography or hydrology for these discretionary wetlands.

**C.** Create natural resource-related recreational amenities that allow public access to the Tittabawassee River Floodplain Project, through construction of approximately 2.4 miles of biking trails and an additional approximately 1.5 to 3.0 miles of nature trails, public access parking, and informational signage (i.e., maps and educational information). The bike trail will be constructed consistent with the Great Lakes Bay Regional Trail system and also the Guide for the Development of Biking Facilities by American Association of State Highway and Transportation Officials (AASHTO), where feasible. Nature trails will be Rural and Roaded Natural or Semiprimitive as defined within the Nature Trail Guidelines (Appendix S of the Consent Decree). Figure 1 provides a conceptual illustration of these amenities and where they might be located, though final decisions will be made with the approval of the Final Design and Implementation Plan.

**D.** Monitoring and maintenance in accordance with Section VI.

#### **IV. Environmental Characterization**

To support the design and implementation plans (described below in Section V) and establish existing conditions, Dow shall perform an Environmental Characterization on the Property. The Environmental Characterization shall consist of the following elements:

##### **A. Soil**

1. Conduct an assessment of soil type to support the design and implementation plans for the Restoration Area, and to define the location and approximate areal extent of portions of the Property that are suitable for natural habitat restoration, including wetland restoration.
2. Conduct due diligence, including an All Appropriate Inquiry (“AAI”) Phase I Environmental Site Assessment (as described in ASTM Practice E 1527-13) on the Property.
  - a. If necessary based on the Phase I AAI results, conduct appropriate Phase II sampling to complete the AAI.



3. Submit to the Trustees for approval a sampling plan for persistent pesticides in the agricultural fields.
4. Conduct a field assessment to identify unique topographic/physiographic features within the Property that may inform the design and implementation of recreational amenities (e.g. trails, public access parking, and outreach-related signage).
5. Summarize known legacy contaminants, including information on spatial distribution that may help inform restoration design.

## **B. Hydrology**

1. Obtain topographic survey information, request relevant records from the County Drain Commission, and conduct field assessments to identify any existing drainage structures (e.g., tiles), to evaluate the feasibility of establishing improved hydrologic connectivity on the Property, e.g., through rendering existing drain tiles inoperable or altering other structures that may currently alter natural hydrology conditions.
2. Verify that hydrologic restoration, if proposed, will not negatively impact adjacent parcels. Work with the County Drain Commissioner as needed to make this determination.

## **C. Vegetation**

1. Conduct an initial Floristic Quality Assessment (FQA) (Herman et al. 2001<sup>1</sup>) survey during the growing season in the Restoration Areas. For agricultural areas, FQA results from another agricultural area being restored pursuant to the Consent Decree can be used (note: we would expect that the FQA in all agricultural areas would result in a similar Floristic Quality Index (“FQI”)). This is to identify and evaluate existing vegetation and determine percent

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<sup>1</sup>Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodovich, and K. P. Gardiner. 2001. Floristic Quality Assessment with Wetland Categories and Examples of Computer Applications for the State of Michigan – Revised, 2nd Edition. Michigan Department of Natural Resources, Wildlife, Natural Heritage Program. Lansing, MI. 19 pp. + Appendices.

<http://www.michigandnr.com/publications/pdfs/HuntingWildlifeHabitat/FQA.pdf>

cover of invasive species for different habitat types or other potential future monitoring units.

2. Establish standardized photo points to record existing conditions for comparison during monitoring efforts in the Restoration Area.

**D. Environmental Characterization Report**

1. Dow shall provide the results of the Environmental Characterization in a report for Trustee review. Development of the Preliminary Design Plan may proceed during the Trustee review of this report.

**V. Design and Implementation**

Dow shall prepare and submit to the Trustees for approval a Preliminary Design Plan, Final Design and Implementation Plan, and a Construction Completion Report. The design and implementation plans shall provide a detailed description of the restoration activities and recreational enhancements to implement the elements described in Section III (Project Requirements). A general summary of each document is provided below.

**A. Preliminary Design Plan**

Dow shall submit a Preliminary Design Plan, including 30% design drawings, to the Trustees for review and written approval. Upon receiving written approval by the Trustees, Dow shall prepare the required permit applications to be submitted to the appropriate regulatory agencies. Dow may submit permit applications prior to Trustee approval of the Preliminary Design Plan if Dow obtains written approval from the Trustees for such earlier submission.

The Preliminary Design Plan shall include preliminary plans for implementing the elements in Section III (Project Requirements), above, and plans for the following elements:

1. Site stabilization or soil erosion measures.
2. Establishing diverse native vegetation species through seeding or planting (including proposed species, densities, and quantities) or use the natural seed bed when possible and taking into account probably future climate conditions (e.g., including native desirable plants at the margin of their

current range but better able to survive with longer, drier summers and other predicted changes).

3. Reducing potential to introduce invasive vegetation in the Property by following the decontamination procedures described in the State of Michigan's Policy Number QOL-2-2014<sup>2</sup>.
4. Proposed location and approximate areal extent of each natural habitat type including areas suitable for wetland restoration based on the identified soil types, topography, and hydrology.
5. Proposed Contingency Measures to address concerns, if any, associated with contaminants.
6. Improving hydraulic connectivity within the Property, where feasible in light of the following:
  - a. Probable effects of climate change (e.g., increased frequency of heavy rainfall events year-round and increased frequency of summer droughts).
  - b. Potential for alterations of existing drainage ditches and drainage structures (e.g., tiles), to the extent the proposed alterations can be approved by the County Drain Commissioner.
  - c. Potential for negative effects of potential erosion and other impacts that may be created by alterations of existing drainage ditches beyond those local potential impacts on the Property that can be prevented or minimized through feasible and practicable design and best management practices on the Property.
7. Establishing user access and developing biking and nature trails while taking into account any unique features on the Property.
8. Management structure and proposed contacts including:
  - a. Names, addresses, email addresses, phone numbers (including cell) for Dow Project representatives.
  - b. Company names for proposed prime and subcontractor(s).

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<sup>2</sup> [http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination\\_476846\\_7.pdf](http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination_476846_7.pdf). Accessed November 1, 2016.

9. Schedule of activities:

- c. Final design submittal
- d. Trustee written approval
- e. Permitting
- f. Construction
- g. Seeding and planting

**B. Final Design and Implementation Plan**

After receipt of Trustee written approval for the Preliminary Design Plan, Dow shall provide the Trustees with the Final Design and Implementation Plan for review and written approval. The Final Design Plan shall include the final plans for the required elements within the Preliminary Design Plan, as well as the following:

- Additional detail on implementation steps, sequencing, and schedule
- Draft or submitted permit application(s)
- Initial plans to promote survival of vegetation during or after implementation, as needed, such as watering, mulching, mowing, weeding, soil amendments, invasive species removal, and/or herbivore exclusion.

**C. Implementation**

After receipt of Trustee written approval for the Final Design and Implementation Plan, Dow shall implement the Project in accordance with the approved Final Design and Implementation Plan and schedule.

**D. Construction Completion Report**

Upon completing construction of the Project, Dow shall submit a Construction Completion Report to the Trustees for review and written approval. The Construction Completion Report shall document the final actions taken to implement the elements in Section III (Project Requirements) and in Section V.



The Construction Completion Report shall include the following:

- As-built drawings
- Any deviations from the Final Design and Implementation Plan and an explanation of the reasons for the deviation
- Documentation of any hydrologic alterations on the Property, including elevation data and the location of any remaining drainage ditches or structures
- Planting details including species and density of plants

Within 60 days after submission of the Construction Completion Report the Trustees shall provide written notification indicating if the Construction Completion Report is approved and the construction phase is considered complete.

## **VI. Monitoring and Maintenance Plan**

Dow shall develop and submit to Trustees for written approval a Monitoring and Maintenance Plan. The Monitoring and Maintenance Plan shall include a detailed description of how Dow will perform monitoring activities to show that Performance Standards, as set forth below, are met. The monitoring period extends from the date of construction completion as recorded in the approved Construction Completion Report until approval of the Project Completion Report. The Monitoring and Maintenance Plan shall detail: goals, monitoring methods, monitoring frequency and duration, and reporting requirements for the monitoring period.

### **A. Monitoring and Maintenance Goals**

Post-construction performance shall be measured through Monitoring and Maintenance activities. The goals of the Monitoring and Maintenance Plan are to determine (1) if restoration and has achieved Performance Standards, (2) if contingency measures are needed, and (3) if contingency measures (if any) are successful in meeting Performance Standards.

## **B. Performance Standards and Contingency Measures**

Dow shall meet the following Performance Standards for restoration and recreational amenities. If necessary to meet Performance Standards, Dow shall propose Contingency Measures for Trustee review and written approval as set forth below and pursuant to Paragraph 8 of the Consent Decree, including any supplemental monitoring requirements applicable to the proposed Contingency Measures. Such Contingency Measures may include those listed below or Dow may propose additional or alternative Contingency Measures.

### **1. Environmental Characterization**

- a. Performance Standard: Soils shall not have contamination that exceeds attached thresholds or other requirements for planned future use.
  - 1) Contingency Measure: If soil contamination exceeds thresholds for persistent pesticides (Attachment 1) or other requirements for planned future use, Dow shall propose actions consistent with federal and state requirements or Dow may propose to exclude one or more areas from the restoration, in which case Dow shall propose alternate restoration areas, activities, or projects in order to offset the exclusion. Alternate restoration areas, activities, or projects shall provide ecological benefits at least as great as the benefits associated with the excluded areas.

### **2. Habitat Restoration**

- a. Performance Standard: Restoration of existing agricultural land (approximately 175 acres) to natural floodplain habitat (e.g., wetland and other natural habitat). For purposes of this SOW, “wetlands” are defined as areas having hydric soils, wetland hydrology, and wetland vegetation consistent with the criteria in the Army Corps of Engineers’ Wetland Delineation Manual.
  - 1) Contingency Measure: To the extent that habitat restoration is not practicable at this Property or a portion of this Property due to unforeseen conditions, Dow shall propose other restoration efforts either at this Property or at another site agreed to by the Trustees. Such alternative or supplemental restoration project shall provide ecological benefits at least as great as the benefits

associated with the restoration activities planned but not completed under this SOW.

- b. Performance Standard: Demonstration that soils do not show evidence of instability due to erosion.
  - 1) Contingency Measure: During the restoration efforts and until vegetation is established, soil erosion shall be monitored and controlled per the requirements of the Soil Erosion and Sediment Control Permit. If, during the restoration implementation, erosion occurs within the Restoration Areas, best management practices for soil erosion and sedimentation control shall be employed. Annual visual inspections of the restoration area shall be performed (after the spring flood season) over the first five years to ensure best management practices are sufficient and no new erosion is occurring.
- c. Performance Standard: If any existing drainage structures are removed and/or any drainage ditches altered, confirm that the alterations remain intact.
  - 1) Contingency Measure: Reevaluate design and make necessary modifications.
- d. Performance Standard: Establishment of stable or increasing native vegetation cover over time through seeding and planting of native vegetation species in accordance with the approved Final Design and Implementation Plan, with the following goals:
  - Coverage by native vegetation of 40% to 50% or more within 3 years after construction is complete
  - Coverage by native vegetation of no less than 65% within in 5 years after the construction is complete, with invasive species comprising less than 10% coverage.
  - Increase in FQI and mean coefficient of conservatism (Mean C) in sampled quadrants with an FQI target of at least 22 for non-wetland restoration and an adjusted FQI target of at least 28 for wetland restoration and a Mean C of at least 3.5 (with FQI and Mean C as defined in Herman et al., 2001). If an area does not meet targets for FQI or Mean C, the

Trustees could determine that the restored area meets these Performance Standards based on the overall habitat quality as intended by the Final Design and Implementation Plan.

- 1) Contingency Measure: If native vegetation is not meeting or expected to meet the 3 and 5 year goals stated above, Contingency Measures shall be proposed and implemented and may include the following:

- Area may be replanted with same or alternate species, or
- Operational measures such as watering, mulching, weeding, soil amendments and/or herbivore exclusion may be used.

- e. Performance Standard: Invasive vegetation shall be managed within the Habitat Restoration Areas to achieve a target of approximately 10% or less coverage. *Phragmites australis* control shall be initiated as soon as practical after detection occurs.

- 1) Contingency Measure: If non-native or invasive vegetation is above 10%, control measures (chemical, mechanical, or biological means) will be implemented.

### **3. Recreational Amenities**

- a. Performance Standard: User access, parking, and recreational trails, as identified in the Final Design and Implementation Plan, are constructed and maintained in accordance with the Final Design and Implementation Plan.

## **C. Monitoring Methods and Frequencies**

### **1. Monitoring Methods**

Monitoring methods for the monitoring period shall be documented as standard operating procedures attached to the Monitoring and Maintenance Plan. Monitoring methods must be sufficient to evaluate progress toward attainment of Performance Standards and include FQA survey methods and standardized photo points that were part of the environmental characterization.

## **2. Monitoring Frequencies**

The monitoring period shall take place according to the NRD Restoration Project Schedules, attached as Appendix Q in the Consent Decree.

During this period, monitoring shall take place at no less than a semi-annual basis to ensure that desired vegetation has become established and invasive vegetation is adequately controlled, where applicable, and that recreational amenities and access are maintained. The monitoring events will be performed at the beginning and end of the growing season (spring and late summer). The spring monitoring event will be used to trigger maintenance activities prior to the growing season. Results of the late summer monitoring events shall be compared to Performance Standards to determine if project goals are being met, the Monitoring and Maintenance Plan is sufficient, and/or Contingency Measures are needed.

### **D. Monitoring and Maintenance Report**

Dow shall submit an annual Monitoring and Maintenance Report to the Trustees by January 31st of the year following each year that monitoring activities are conducted per the SOW. Each Monitoring and Maintenance Report shall include:

- Methods used for monitoring and maintenance.
- Results of any Property evaluations.
- Discussion of results and how results compare against Performance Standards.
- Recommended contingency measures, if any.
- Appendices to include data, maps, and photographs.

### **E. Project Completion Report**

Dow shall submit a Project Completion Report to the Trustees for review and written approval. The Project Completion Report shall summarize all maintenance and monitoring activities as well as any other findings that occurred during the entire monitoring period. The Project Completion Report shall also provide documentation that a conservation easement or a similar recordable conservation instrument listed in III.A has been recorded and identify any other entity that has accepted ownership of the Property, per Paragraphs 3 and 7 of the Consent Decree.

## **VII. Deliverables Summary**

This SOW includes the following deliverables each being summarized in the above sections:

- Environmental Characterization Report (Section IV)
- Preliminary Design Plan (Section V.A)
- Final Design and Implementation Plan (Section V.B)
- Construction Completion Report (Section V.D)
- Monitoring and Maintenance Plan (Section VI)
- Monitoring and Maintenance Reports (Section VI.D)
- Project Completion Report (Section VI.D)

## **VIII. NRD Restoration Project Schedules**

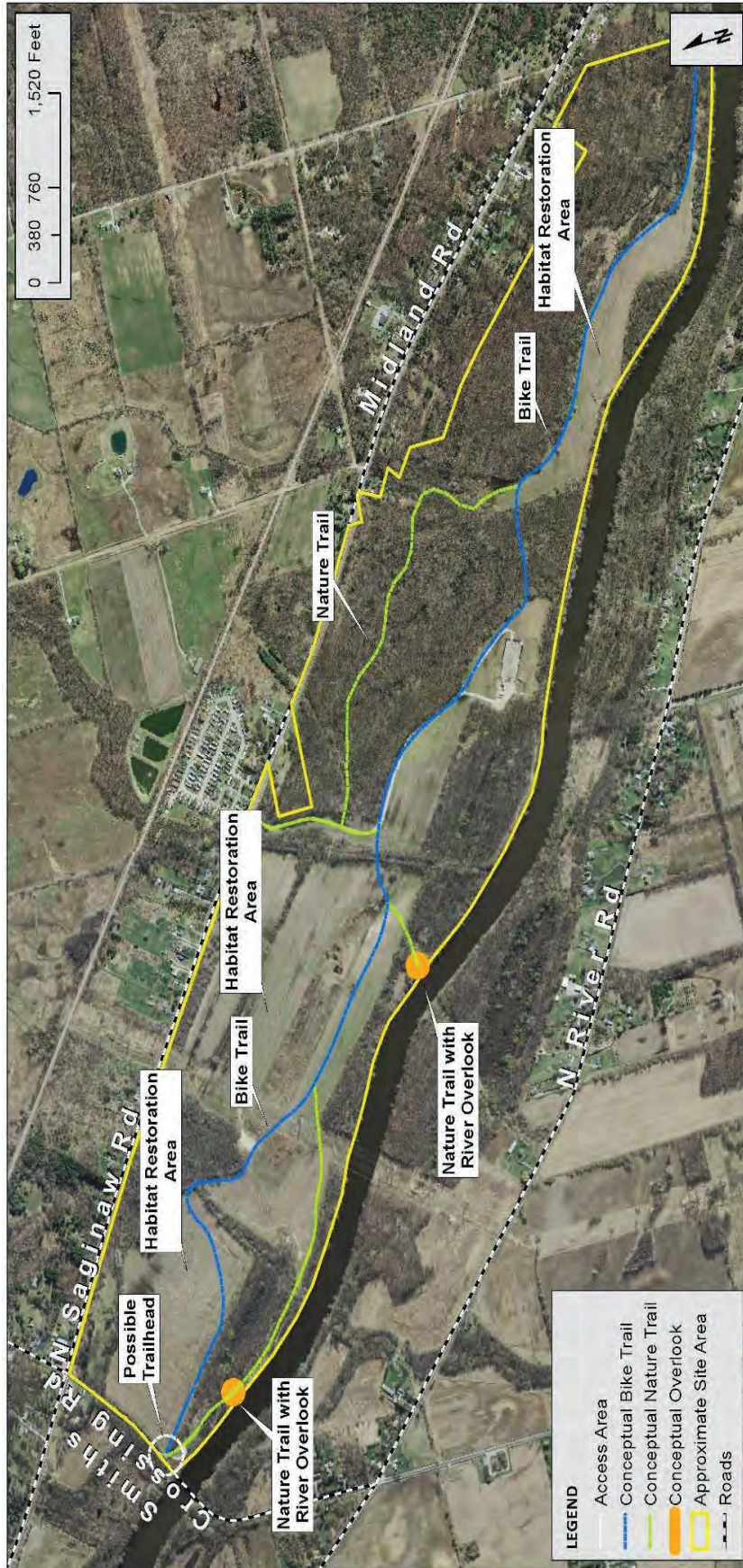
Dow shall complete all activities and submit all deliverables for the Project in accordance with the schedule set forth in or developed pursuant to the NRD Restoration Project Schedules, which is attached to the Consent Decree as Appendix Q, and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The NRD Restoration Project Schedules sets forth the timeline for major activities for each of the Dow-implemented Restoration Projects identified in Section V of the Consent Decree, including Restoration Progress Meetings and the deadlines for all deliverables. Dow may submit reasonable and prudent modifications to the NRD Restoration Project Schedules to the Trustees for written approval, as provided for in Paragraph 7 of the Consent Decree.

## **IX. Contact Information**

Dow shall submit all Project deliverables via electronic mail to Trustees in accordance with Section XXIII (Notice) of the Consent Decree. In addition, the Trustees may identify a reasonable number of contacts to receive hard copies of any deliverables.



Figure 1. Location and conceptual plan for the Tittabawassee River Floodplain Restoration and Bike Trail Project



**Attachment 1. Persistent Pesticide Screening Criteria for Wetland Restoration**

Compiled by Lisa L. Williams, U.S. Fish and Wildlife Service, East Lansing, MI  
December, 2017

**Basis**

Persistent, bioaccumulative pesticides may be present in agricultural soils. When areas that have previously been in agriculture are converted to wetlands or open water habitats, benthic invertebrates and fish are exposed to those pesticides which can then biomagnify in the aquatic foodweb to a greater extent than in a terrestrial foodweb. For purposes of this project, agricultural soils will be analyzed for persistent pesticides and organic carbon content, and pesticide concentrations will be compared to sediment screening values compiled from several sources.

The Method Limit of Detection (MLOD) is as described by the Environmental Protection Agency in 40 CFR Part 136, Appendix B and required by contract labs for the United States Fish and Wildlife Service.

**Sediment Screening Values**

All concentrations are in  $\mu\text{g}/\text{kg}$  dry weight (dw) and criteria from different sources are adjusted to a consistent 2% organic carbon (OC) content. Concentrations in soils will need to be similarly adjusted to make a direct comparison to these concentrations (i.e., divide the dry weight concentration in a sample by the fraction of OC in that sample and then multiply by 0.02).

<b>Pesticide</b>	<b>Proposed Soil to Sediment Value for Emergent Marsh, <math>\mu\text{g}/\text{kg}</math> dw</b>	<b>Proposed Soil to Sediment Value for Open Water, <math>\mu\text{g}/\text{kg}</math> dw</b>	<b>Source</b>
Total DDT compounds	25	25	MLOD
DDT equivalents	213	89	(3)
p,p'-DDE	34	34	(1)
p,p'-DDD	33	33	(1)
p,p'-DDT	67	67	(1)
o,p'-DDE	summed with p,p'	summed with p,p'	(1)
o,p'-DDD	summed with p,p'	summed with p,p'	(1)
o,p'-DDT	summed with p,p'	summed with p,p'	(1)



<b>Pesticide</b>	<b>Proposed Soil to Sediment Value for Emergent Marsh, µg/kg dw</b>	<b>Proposed Soil to Sediment Value for Open Water, µg/kg dw</b>	<b>Source</b>
HCB	305	305	(4)
alpha BHC	106	106	(1)
beta BHC	216	216	(1)
gamma BHC (lindane)	10	10	MLOD
"BHC" (sum of isomers)	124	124	(1)
aldrin	82	82	(1)
dieldrin	64	64	(1)
heptaclor	22,857	22,857	(3)
heptaclor epoxide	19	19	(1)
oxychlordane	408	408	(4)
alpha chlordane	3,687	733	(4)
gamma chlordane	7,143	1,843	(4)
"chlordane" (sum of isomers)	21	21	(1)
endrin	70	70	(4)
toxaphene	50	50	MLOD

(1) Wisconsin Department of Natural Resources, 2003. *Consensus-Based Sediment Quality Guidelines Recommendations for Use & Application, Interim Guidance*. 35 pp.

(2) Minnesota Pollution Control Agency, 2007. *Guidance for the Use and Application of Sediment Quality Targets for the Protection of Sediment-Dwelling Organisms in Minnesota*. 64 pp.

(3) Coveney, M.F. and R. Conrow, 2016. *Pesticide Studies and Risk Assessments on the Lake Apopka North Shore, Technical Memorandum 57*. St. Johns River Water Management District. 42 pp.

(4) New York State Department of Environmental Conservation, 2014. *Screening and Assessment of Contaminated Sediment*. 99 pp.

(5) Crane, J. L., 2017. Ambient sediment quality conditions in Minnesota lakes, USA: Effects of watershed parameters and aquatic health implications. *Science of the Total Environment* 607-608: 1320-1338.

**APPENDIX F**  
**Statement of Work**  
**Bay City Ecological Restoration Project**

- I. Purpose**
- II. Project Location and Current Conditions**
- III. Project Requirements**
- IV. Environmental Characterization**
  - A. Soil
  - B. Hydrology
  - C. Vegetation
  - D. Environmental Characterization Report
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    - 1. Monitoring Methods
    - 2. Monitoring Frequencies
  - D. Monitoring and Maintenance Report
  - E. Project Completion Report
- VII. Deliverables Summary**
- VIII. NRD Restoration Project Schedules**
- IX. Contact Information**

**Statement of Work**  
Bay City Ecological Restoration Project

**I. Purpose**

The purpose of this Statement of Work (“SOW”) is to describe the requirements for the Bay City Ecological Restoration Project (“Project”).

**II. Project Location and Current Conditions**

The Project is located in Bangor Township, Michigan near the Saginaw River’s outlet to Saginaw Bay of Lake Huron (Figures 1 and 2) (the “Property”). The Property is approximately 415 acres in area and is currently owned by Dow. For purposes of this SOW, the Property does not include the areas labelled “Bay Sail” and “Lighthouse” on Figures 1 and 2.

**III. Project Requirements**

Dow shall implement all requirements described below in this SOW in accordance with applicable provisions of the NRD Restoration Project Schedules in Appendix Q and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The project requirements are:

- A.** Protect in perpetuity all of the approximately 415 acres of the Property through a conservation easement or similar recordable conservation instrument that is consistent with Appendix H (Agreement for Conservation Easement) and enforceable by the Trustees.
- B.** Convert existing agricultural land on the Property (approximately 245 acres) into natural habitat (“Restoration Area”) by planting and maintaining vegetation, controlling invasive vegetation, and, where feasible on the Property, restoring hydrology (as described in Sections IV and V.A.) for Great Lakes coastal marsh, other wetland types, and lake plain prairie habitats. Where supported by existing topography, hydrology, soils and climate, wetland restoration shall be prioritized on the approximately 245 acres of existing agricultural land. Except for rendering drainage tiles inoperable to the extent feasible and consistent with Sections IV.B and V.A below, Dow shall not

be required by this SOW to make changes to topography or hydrology for these discretionary wetlands.

- C. Create natural resource-related recreational amenities that allow public access to the Property, through construction of approximately 3 to 5 miles of nature trails, public access parking, informational signage, and construction of 2-3 fishing platforms, each approximately 50 feet long along the Saginaw River (“Recreational Projects”). Nature trails will be Rural and Roded Natural or Semiprimitive as defined within the Nature Trail Guidelines (Appendix S of the Consent Decree). Figures 1 and 2 provide conceptual illustrations of these amenities and where they might be located, though final decisions will be made with the approval of the Final Design and Implementation Plan.
- D. Monitoring and maintenance in accordance with Section VI.

#### **IV. Environmental Characterization**

To support the design and implementation plans (described below in Section V) and establish existing conditions, Dow shall perform an Environmental Characterization on the Property. The Environmental Characterization shall consist of the following elements:

##### **A. Soil**

1. Conduct an assessment of soil types to support the design and implementation plans for the Restoration Area, and to define the location and approximate areal extent of portions of the Property that are suitable for natural habitat restoration, including wetland restoration and lake plain prairie restoration.
2. Conduct due diligence, including an All Appropriate Inquiry (“AAI”) Phase I Environmental Site Assessment (as described in ASTM Practice E 1527-13) on the Property.
  - a. If necessary based on Phase I AAI results, conduct appropriate Phase II sampling to complete the AAI.
3. Submit to the Trustees for approval a sampling plan for persistent pesticides in the agricultural fields.
4. Conduct a field assessment to identify unique topographic/physiographic features within the Property that may inform design and implementation of

the recreational amenities (e.g. trails, public access parking, and outreach-related signage).

**B. Hydrology**

1. Obtain topographic survey information, request relevant records from the County Drain Commission, and conduct field assessments to identify any existing drainage structures (e.g. tiles), to evaluate the feasibility of establishing improved hydrologic connectivity on the Property, e.g., through rendering existing drain tiles inoperable or altering other structures that may currently alter natural hydrology conditions.
  - a. Verify that hydrologic restoration will not negatively impact adjacent parcels. Work with the County Drain Commissioner as needed to make this determination.

**C. Vegetation**

1. Conduct an initial Floristic Quality Assessment (FQA) (Herman et al. 2001<sup>1</sup>) survey during the growing season in the Restoration Area. For agricultural areas, FQA results from another agricultural area being restored pursuant to the Consent Decree can be used (note: we would expect that the FQA in all agricultural areas would result in a similar Floristic Quality Index (“FQI”)). This is to identify and evaluate existing vegetation and determine percent cover of invasive species for different habitat types or other potential future monitoring units.
2. Establish standardized photo points to record existing conditions for comparison during monitoring efforts in the Restoration Area.

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<sup>1</sup> Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodovich, and K. P. Gardiner. 2001. Floristic Quality Assessment with Wetland Categories and Examples of Computer Applications for the State of Michigan – Revised, 2nd Edition. Michigan Department of Natural Resources, Wildlife, Natural Heritage Program. Lansing, MI. 19 pp. + Appendices.  
<http://www.michigandnr.com/publications/pdfs/HuntingWildlifeHabitat/FQA.pdf>

#### **D. Environmental Characterization Report**

1. Dow shall provide the results of the Environmental Characterization in a report for Trustee review. Development of the Preliminary Design Plan may proceed during the Trustee review of this report.

#### **V. Design and Implementation**

Dow shall prepare and submit to the Trustees for approval a Preliminary Design Plan, Final Design and Implementation Plan, and a Construction Completion Report. The design and implementation plans shall provide a detailed description of the restoration activities and recreational enhancements to implement the elements described in Section III (Project Requirements). A general summary of each document is provided below.

##### **A. Preliminary Design Plan**

Dow shall submit a Preliminary Design Plan, including 30% design drawings, to the Trustees for review and written approval. Upon receiving written approval by the Trustees, Dow shall prepare the required permit applications to be submitted to the appropriate regulatory agencies. Dow may submit permit applications prior to Trustee approval of the Preliminary Design Plan if Dow obtains written approval from the Trustees for such earlier submission.

The Preliminary Design Plan shall include preliminary plans for implementing the elements in Section III (Project Requirements), above, and plans for the following elements:

1. Site stabilization or soil erosion measures.
2. Establishing diverse native vegetation species through seeding or planting (including proposed species, densities, and quantities) or using the natural seed bed when possible and taking into account probable future climate conditions (e.g., including native desirable plants at the margin of their current range but better able to survive with longer, drier summers and other predicted changes).

3. Reducing potential to introduce invasive vegetation in the Restoration Area by following the decontamination procedures described in the State of Michigan's Policy Number QOL-2-2014<sup>2</sup>.
4. Proposed locations and approximate areal extent of each natural habitat type including areas suitable for Wetland Restoration based on the identified soil types, topography, and hydrology.
5. Proposed Contingency Measures to address concerns, if any, associated with contaminants.
6. Improved hydrologic connectivity within the Property, where feasible:
  - a. Considering probable effects of climate change (e.g., increased frequency of heavy rainfall events year-round and increased frequency of summer droughts).
  - b. Considering alterations of existing drainage ditches and drainage structures (e.g., tiles), to the extent that proposed alterations are practicable and can be approved by the County Drain Commissioner.
7. Proposed location of the Recreational Projects, including parking areas and signage.
8. Management structure and proposed contacts including:
  - a. Names, addresses, email addresses, phone numbers (including cell) for Dow project representatives.
  - b. Company names for proposed prime and subcontractor(s).
9. Schedule of activities
  - a. Final design submittal
  - b. Trustee written approval
  - c. Permitting
  - d. Construction
  - e. Seeding and planting

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<sup>2</sup> [http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination\\_476846\\_7.pdf](http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination_476846_7.pdf). Accessed November 1, 2016.



## **B. Final Design and Implementation Plan**

After receipt of Trustee written approval for the Preliminary Design Plan, Dow shall provide the Trustees with the Final Design and Implementation Plan for review and written approval. The Final Design and Implementation Plan shall include the final plans for the required elements within the Preliminary Design Plan, as well as the following:

- Additional detail on implementation steps, sequencing, and schedule
- Draft or submitted permit application(s)
- Initial plans to promote survival of vegetation during or after implementation as needed, such as watering, mulching, mowing, weeding, soil amendments, invasive species removal, and/or herbivore exclusion.

## **C. Implementation**

After receipt of Trustee written approval for the Final Design and Implementation Plan, Dow shall implement the Project in accordance with the approved Final Design and Implementation Plan and schedule.

## **D. Construction Completion Report**

Upon completing construction of the Project, Dow shall submit a Construction Completion Report to the Trustees for review and written approval. The Construction Completion Report shall document the final actions taken to implement the elements in Section III (Project Requirements) and in Section V.

The Construction Completion Report shall include the following:

- As-built drawings
- Any deviations from the Final Design and Implementation Plan and an explanation of the reasons for the deviation
- Documentation of any hydrologic alterations on the Property, including elevation data and the location of any remaining drainage ditches or structures
- Planting details including species and density of plants

Within 60 days after submission of the Construction Completion Report, the Trustees shall provide written notification indicating if the Construction Completion Report is approved and the construction phase is considered complete.

## **VI. Monitoring and Maintenance Plan**

Dow shall develop and submit to Trustees for written approval a Monitoring and Maintenance Plan. The Monitoring and Maintenance Plan shall include a detailed description of how Dow will perform, monitoring activities to show that Performance Standards, as set forth below, are met. The monitoring period extends from the date of construction completion as recorded in the approved Construction Completion Report until approval of the Project Completion Report. The Monitoring and Maintenance Plan shall detail: goals, monitoring methods, monitoring frequency and duration, and reporting requirements for the monitoring period.

### **A. Monitoring and Maintenance Goals**

Post-construction performance shall be measured through Monitoring and Maintenance activities. The goals of the Monitoring and Maintenance Plan are to determine (1) if restoration has achieved Performance Standards, (2) if contingency measures are needed, and (3) if contingency measures (if any) are successful in meeting Performance Standards.

### **B. Performance Standards and Contingency Measures**

Dow shall meet the following Performance Standards for restoration and Recreational Projects. If necessary to meet Performance Standards, Dow shall propose Contingency Measures for Trustee review and written approval as set forth below and pursuant to Paragraph 8 of the Consent Decree, including any supplemental monitoring requirements applicable to the proposed Contingency Measures. Such Contingency Measures may include those listed below or Dow may propose additional or alternative Contingency Measures.

## **1. Environmental Characterization**

- a. Performance Standard: Soils should not have contamination concentrations that exceed attached thresholds or other requirements for planned future use.
  - 1) Contingency Measure: If soil contamination exceeds thresholds for persistent pesticides (Attachment 1) or other requirements for planned future use, Dow shall propose actions consistent with federal and state requirements or Dow may propose to exclude one or more areas from the restoration, in which case Dow shall propose alternate restoration areas, activities or projects in order to offset the exclusion. Alternate restoration areas, activities or projects shall provide ecological benefits at least as great as the benefits associated with the excluded areas.

## **2. Habitat Restoration**

- a. Performance Standard: Restoration of agricultural land (approximately 245 acres) to natural habitats (e.g., wetlands, uplands, lake plain prairie) in the Restoration Area. For purposes of this SOW, “wetlands” are defined as areas having hydric soils, wetland hydrology, and wetland vegetation consistent with the criteria in the Army Corps of Engineers’ Wetland Delineation Manual.
  - 1) Contingency Measure: To the extent that habitat restoration is not practicable at the Property, or a portion of the Property, due to unforeseen conditions, Dow shall propose other restoration efforts either at this Property, or at another location agreed to by the Trustees. Such alternatives or supplemental restoration project shall provide ecological benefits at least as great as the benefits associated with the restoration planned but not completed under this SOW.
- b. Performance Standard: Demonstration that soils do not show evidence of instability due to erosion.
  - 1) Contingency Measure: During the restoration efforts and until vegetation is established, soil erosion shall be monitored and controlled per the requirements of the Soil Erosion and Sediment

Control Permit. If, during the restoration implementation, erosion occurs within the Restoration Area, best management practices for soil erosion and sedimentation control shall be employed. Annual visual inspection of the Restoration Area shall be performed over the first five years to ensure best management practices are sufficient and no new erosion is occurring.

- c. Performance Standard: If any existing drainage structures are removed and/or any drainage ditches altered, confirm that the alterations remain intact.
  - 1) Contingency Measure: Re-evaluate design and make necessary modifications.
- d. Performance Standard: Establishment of stable or increasing native vegetation cover over time through seeding and planting of native vegetation species in accordance with the approved Final Design and Implementation Plan, with the following goals:
  - Coverage by native vegetation of 40% to 50% or more within 3 years after construction is complete.
  - Coverage by native vegetation of no less than 65% within in 5 years after the construction is complete, with invasive species comprising less than 10% coverage.
  - Increase in FQI and mean coefficient of conservatism (Mean C) in sampled quadrants with an FQI target of at least 22 for non-wetland restoration and an adjusted FQI target of at least 28 for wetland restoration and a Mean C of at least 3.5 (with FQI and Mean C as defined in Herman et al., 2001). If an area does not meet targets for FQI or Mean C, the Trustees could determine that the restored area meets these Performance Standards based on the overall habitat quality as intended by the Final Design and Implementation Plan.
- di. Contingency Measure: If native vegetation is not meeting or expected to meet the 3 and 5 year goals stated above,

Contingency Measures shall be proposed and implemented and may include the following:

- Areas may be replanted with same or alternate species, or
  - Operational measures such as watering, mulching, weeding, soil amendments and/or herbivore exclusion may be used.
- e. Performance Standard: Invasive vegetation will be managed within the Restoration Area to achieve a target of 10% or less coverage. *Phragmites australis* control shall be initiated as soon as practical after detection occurs.
- 1) Contingency Measure: If non-native or invasive vegetation is above 10%, coverage, control measures (chemical, mechanical, or biological means) will be implemented.

### **3. Recreational Amenities**

- a. Performance Standard: Recreational Projects, as identified in the Final Design and Implementation Plan, are constructed and maintained in accordance with the Final Design and Implementation Plan.

## **C. Monitoring Methods and Frequencies**

### **1. Monitoring Methods**

Monitoring methods for the monitoring period shall be documented as standard operating procedures attached to the Monitoring and Maintenance Plan. Monitoring methods must be sufficient to evaluate progress toward attainment of Performance Standards and include FQA survey methods and standardized photo points that were part of the environmental characterization.

### **2. Monitoring Frequencies**

The monitoring period shall take place according to the NRD Restoration Project Schedules, attached as Appendix Q in the Consent Decree. During this period, monitoring shall take place at no less than a semi-annual basis to ensure that desired vegetation has become established and invasive vegetation is adequately controlled, where applicable, and

that recreational amenities and access are maintained. The monitoring events will be performed at the beginning and end of the growing season (spring and late summer). The spring monitoring event will be used to trigger maintenance activities prior to the growing season. Results of the late summer monitoring events shall be compared against Performance Standards to determine if project goals are being met, the Monitoring and Maintenance Plan is sufficient, and/or Contingency Measures are needed.

**D. Monitoring and Maintenance Report**

Dow shall submit an annual Monitoring and Maintenance Report to the Trustees by January 31st of the year following each year that monitoring activities are conducted per the SOW. Each Monitoring and Maintenance Report shall include:

- Methods used for monitoring and maintenance.
- Results of any Property evaluations.
- Discussion of results and how results compare against Performance Standards.
- Recommended contingency measures, if any.
- Appendices to include data, maps, and photographs.

**E. Project Completion Report**

Dow shall submit a Project Completion Report to the Trustees for review and written approval. The Project Completion Report shall summarize all maintenance and monitoring activities as well as any other findings that occurred during the entire monitoring period. The Project Completion Report shall also provide documentation that a conservation easement or a similar recordable conservation instrument listed in III.A has been recorded and identify any other entity that has accepted ownership of the Property per Paragraphs 3 and 7 of the Consent Decree.

## **VII. Deliverables Summary**

This SOW includes the following deliverables each being summarized in the above sections:

- Environmental Characterization Report (Section IV)
- Preliminary Design Plan (Section V.A)
- Final Design and Implementation Plan (Section V.B)
- Construction Completion Report (Section V.D)
- Monitoring and Maintenance Plan (Section VI)
- Monitoring and Maintenance Reports (Section VI.D.)
- Project Completion Report (Section VI.E)

## **VIII. NRD Restoration Project Schedules**

Dow shall complete all activities and submit all deliverables for the Project in accordance with the schedule set forth or developed pursuant to the NRD Restoration Project Schedules, which is attached to the Consent Decree as Appendix Q, and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The NRD Restoration Project Schedules sets forth the timeline for major activities for each of the Dow-implemented Restoration Projects identified in Section V of the Consent Decree, including Restoration Progress Meetings and the deadlines for all deliverables. Dow may submit reasonable and prudent modifications to the NRD Restoration Project Schedules to the Trustees for written approval, as provided for in Paragraph 7 of the Consent Decree.

## **IX. Contact Information**

Dow shall submit all Project deliverables via electronic mail to Trustees in accordance with Section XXIII (Notice) of the Consent Decree. In addition, the Trustees may identify a reasonable number of contacts to receive hard copies of any deliverables.



Figure 1. Location and conceptual plan for Bay City Ecological Restoration Project





Figure 2. Enlarged view of the eastern portion of the conceptual plan for the Bay City Ecological Restoration Project



**Attachment 1. Persistent Pesticide Screening Criteria for Wetland Restoration**

Compiled by Lisa L. Williams, U.S. Fish and Wildlife Service, East Lansing, MI  
December, 2017

**Basis**

Persistent, bioaccumulative pesticides may be present in agricultural soils. When areas that have previously been in agriculture are converted to wetlands or open water habitats, benthic invertebrates and fish are exposed to those pesticides which can then biomagnify in the aquatic foodweb to a greater extent than in a terrestrial foodweb. For purposes of this project, agricultural soils will be analyzed for persistent pesticides and organic carbon content, and pesticide concentrations will be compared to sediment screening values compiled from several sources.

The Method Limit of Detection (MLOD) is as described by the Environmental Protection Agency in 40 CFR Part 136, Appendix B and required by contract labs for the United States Fish and Wildlife Service.

**Sediment Screening Values**

All concentrations are in  $\mu\text{g}/\text{kg}$  dry weight (dw) and criteria from different sources are adjusted to a consistent 2% organic carbon (OC) content. Concentrations in soils will need to be similarly adjusted to make a direct comparison to these concentrations (i.e., divide the dry weight concentration in a sample by the fraction of OC in that sample and then multiply by 0.02).

<b>Pesticide</b>	<b>Proposed Soil to Sediment Value for Emergent Marsh, <math>\mu\text{g}/\text{kg}</math> dw</b>	<b>Proposed Soil to Sediment Value for Open Water, <math>\mu\text{g}/\text{kg}</math> dw</b>	<b>Source</b>
Total DDT compounds	25	25	MLOD
DDT equivalents	213	89	(3)
p,p'-DDE	34	34	(1)
p,p'-DDD	33	33	(1)
p,p'-DDT	67	67	(1)
o,p'-DDE	summed with p,p'	summed with p,p'	(1)
o,p'-DDD	summed with p,p'	summed with p,p'	(1)
o,p'-DDT	summed with p,p'	summed with p,p'	(1)

<b>Pesticide</b>	<b>Proposed Soil to Sediment Value for Emergent Marsh, µg/kg dw</b>	<b>Proposed Soil to Sediment Value for Open Water, µg/kg dw</b>	<b>Source</b>
HCB	305	305	(4)
alpha BHC	106	106	(1)
beta BHC	216	216	(1)
gamma BHC (lindane)	10	10	MLOD
"BHC" (sum of isomers)	124	124	(1)
aldrin	82	82	(1)
dieldrin	64	64	(1)
heptaclor	22,857	22,857	(3)
heptaclor epoxide	19	19	(1)
oxychlordane	408	408	(4)
alpha chlordane	3,687	733	(4)
gamma chlordane	7,143	1,843	(4)
"chlordane" (sum of isomers)	21	21	(1)
endrin	70	70	(4)
toxaphene	50	50	MLOD

(1) Wisconsin Department of Natural Resources, 2003. *Consensus-Based Sediment Quality Guidelines Recommendations for Use & Application, Interim Guidance*. 35 pp.

(2) Minnesota Pollution Control Agency, 2007. *Guidance for the Use and Application of Sediment Quality Targets for the Protection of Sediment-Dwelling Organisms in Minnesota*. 64 pp.

(3) Coveney, M.F. and R. Conrow, 2016. *Pesticide Studies and Risk Assessments on the Lake Apopka North Shore, Technical Memorandum 57*. St. Johns River Water Management District. 42 pp.

(4) New York State Department of Environmental Conservation, 2014. *Screening and Assessment of Contaminated Sediment*. 99 pp.

(5) Crane, J. L., 2017. Ambient sediment quality conditions in Minnesota lakes, USA: Effects of watershed parameters and aquatic health implications. *Science of the Total Environment* 607-608: 1320-1338.

**APPENDIX G**  
**Statement of Work**  
**Saginaw River Mouth Boating Access Site Expansion Project**

- I. Purpose**
- II. Project Location and Current Conditions**
- III. Project Requirements**
- IV. Environmental Characterization**
  - A. Soil and Sediment**
  - B. Topography and Bathymetry**
  - C. Vegetation**
  - D. Environmental Characterization Report**
- V. Design and Implementation**
  - A. Preliminary Design Plan**
  - B. Final Design and Implementation Plan**
  - C. Implementation**
  - D. Construction Completion Report**
- VI. Monitoring Plan**
  - A. Monitoring Goals**
  - B. Performance Standards and Contingency Measures**
  - C. Monitoring Methods and Frequencies**
    - 1. Monitoring Methods**
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  - D. Monitoring Report**
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- VII. Deliverables Summary**
- VIII. NRD Restoration Project Schedules**
- IX. Contact Information**

## **Statement of Work**

### **Saginaw River Mouth Boating Access Site Expansion Project**

#### **I. Purpose**

The purpose of this Statement of Work (“SOW”) is to describe the requirements for the Saginaw River Mouth Boating Access Site Expansion Project (“Project”).

#### **II. Project Location and Current Conditions**

The Project involves the existing Michigan Department of Natural Resources (MDNR) Saginaw River Mouth Boating Access Site, that is located in Bangor Township in Bay, Michigan near the Saginaw River near where it enters Saginaw Bay of Lake Huron (Figure 1). A portion of the Project area shown on Figures 1 and 2 includes property to the west and south of the existing MDNR facility that is currently owned by Dow and contiguous with the Bay City Restoration Project that is described in a separate SOW. Expansion to the west is contingent upon an approval being provided by a local company occupying an easement on that portion of the Dow property.

#### **III. Project Requirements**

Dow shall implement all project requirements as described below in this SOW accordance with applicable provisions of the NRD Restoration Project Schedules in Appendix Q and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The project elements are:

- Increase launching capacity by increasing the number of launch lanes from 5 to 8 and adding accompanying docks.
- Expand the existing parking lot through the addition of a minimum of 50 parking spaces, with 25 of those parking spaces for cars and the remaining spaces to accommodate vehicles with trailers.
- If necessary, relocate existing pit restrooms at a new location to facilitate access to the expanded boat launch area by vehicles with trailers. Figure 2 represents a conceptual design only. Exact locations of the expanded boat



launch lanes and vehicle access routes will be determined during the design process, so it is possible that relocating the restrooms would not be necessary.

- Transfer of Dow land adjacent to the MDNR Saginaw River Mouth Boating Access Site to the State of Michigan to accommodate additional parking spaces. The number of acres and location of those acres that Dow will transfer will be determined during the design process.

#### **IV. Environmental Characterization**

To support the design and implementation plans (described below in Section V) and establish existing conditions, Dow shall perform an Environmental Characterization on the property. The Environmental Characterization shall consist of the following elements:

##### **A. Soil and Sediment**

- Conduct due diligence on the Dow-owned property to be transferred to the State of Michigan including an All Appropriate Inquiry (AAI) Phase I Environmental Site Assessment (ESA; as described in ASTM Practice E 2600-15)
  - If the location of the property to be transferred changes during the design process, then Dow shall conduct due diligence on property to be transferred prior to submitting the Final Design and Implementation Plan to the Trustees.
  - If necessary based on the Phase I AAI results, conduct appropriate Phase II ESA sampling to complete the AAI.
- Conduct an assessment of soil type and a wetland delineation, if necessary, to determine if soil conditions are adequate to construct additional parking lot spaces and relocate the restroom facility per local building standards, in case the restroom does need to be relocated.
- Conduct an assessment of sediment and soil in the areas to be disturbed for creating additional launch lanes to determine appropriate options

for managing sediment and soil removed from the area and any newly exposed surficial layer.

**B. Topography and Bathymetry**

- Obtain topographic and bathymetric survey information to support planning and design of additional launch ramps, docks, and parking areas.

**C. Vegetation**

- Conduct a tree survey in the area where the parking expansion may occur.

**D. Environmental Characterization Report**

- Dow shall provide the results of the Environmental Characterization in a report for Trustee review. Development of the Preliminary Design Plan may proceed during the Trustee review of this report.

**V. Design and Implementation**

Dow shall prepare and submit to the Trustees for approval a Preliminary Design Plan, Final Design and Implementation Plan, and Construction Completion Report. The design and implementation plans shall provide a detailed description of the activities to implement the elements described in Section III (Project Requirements). A general summary of each document is provided below.

**A. Preliminary Design Plan**

Dow shall work with the MDNR Parks and Recreation Division (“PRD”) while developing a Preliminary Design Plan and then submit a Preliminary Design Plan, including 50% design drawings, to the Trustees for written approval. Upon receiving written approval by the Trustees, Dow shall prepare the required permit applications to be submitted to the appropriate regulatory agencies. Dow may submit permit applications prior to Trustee approval of the Preliminary Design Plan if Dow obtains written approval from the Trustees for such earlier submission.



The Preliminary Design Plan shall include preliminary plans for implementing the elements in Section III (Project Requirements), above, and the following:

- Site stabilization, soil erosion, and turbidity control measures
- Proposed parking lot and boat ramp layout that incorporates expansion plans, including traffic patterns
- Description of any subgrade improvements required for expansion of the parking lot and relocation of restrooms.
- Summary of the impacts on the adjacent trees in the expansion area, including provisions for timing any necessary tree removal during the winter.
- Management of dredged material
- Management structure and proposed contacts including:
  - Names, addresses, email addresses, phone number (including cell) for Dow project representatives
  - Company names for proposed prime and subcontractor(s)
- Schedule of activities:
  - Final design submittal
  - Trustee written approval
  - Permitting
  - Construction

## **B. Final Design and Implementation Plan**

After receipt of Trustee written approval for the Preliminary Design Plan, Dow shall provide 90% design drawings to the MDNR PRD for review and then provide the Trustees with the Final Design and Implementation Plan for review and written approval. The design drawings in the Final Design and Implementation Plan may be 90% design drawings, consistent with the existing MDNR PRD review process. The Final Design and Implementation Plan shall include the final plans for the required elements within the Preliminary Design Plan as well as the following:

- Additional detail on implementation steps, sequencing, and schedule
- Draft or submitted permit application(s)

### **C. Implementation**

After receipt of Trustee written approval for the Final Design and Implementation Plan, Dow shall implement the Project in accordance with the approved Final Design and Implementation Plan and schedule.

### **D. Construction Completion Report**

Upon completing construction of the Project, Dow shall submit a Construction Completion Report to the Trustees for review and approval per the NRD Restoration Project Schedules. The Construction Completion Report shall document the final actions taken to implement the elements in Section III (Project Requirements) and in Section V.

The Construction Completion Report shall include the following:

- As-built drawings
- Any deviations from the Final Design and Implementation Plan and an explanation of the reasons for the deviation

Within 60 days after submission of the Construction Completion Report and the Monitoring Plan (as described below), the Trustees shall provide written notification indicating if the Construction Completion Report is approved and the construction phase is considered complete.

## **VI. Monitoring Plan**

Dow shall develop and submit to Trustees for written approval a Monitoring Plan. The Monitoring Plan shall include a detailed description of how Dow will perform monitoring activities to show that Performance Standards, as set forth below, are met. The monitoring period extends from the date of construction completion as recorded in the approved Construction Completion Report until approval of the Project Completion Report. The Monitoring Plan shall detail: goals, monitoring

methods, monitoring frequency and duration, and reporting requirements for the monitoring period. Routine maintenance, or maintenance already being carried out by MDNR prior to the project, will continue to be the responsibility of MDNR.

**A. Monitoring Goals**

Post-construction performance shall be measured through Monitoring activities. The goals of the Monitoring Plan are to determine (1) when the Project has achieved Performance Standards, (2) if contingency measures are needed, and (3) if contingency measures (if any) are successful in meeting Performance Standards.

**B. Performance Standards and Contingency Measures**

Dow shall meet the following Performance Standards for the Project. If necessary to meet Performance Standards, Dow shall propose Contingency Measures for Trustee review and written approval as set forth below and pursuant to Paragraph 8 of the Consent Decree, including any supplemental monitoring requirements applicable to the proposed Contingency Measures. Such Contingency Measures may include those listed below or Dow may propose additional or alternative Contingency Measures. The Performance Standards are:

- Land transferred to the State of Michigan for MDNR is completed in accordance with state requirements.
- Project is designed and constructed to provide at least an additional 50 parking spaces with at least 25 spaces to accommodate vehicles with trailers per applicable state rules and regulations and in accordance with the Final Design and Implementation Plan.
- Design and construct 3 additional launch lanes with accompanying docks in accordance with the Final Design and Implementation Plan. Design and materials of construction used on the boat launch and parking area to accommodate the expansions shall be as specified in the Final Design and Implementation Plan.

## **C. Monitoring Methods and Frequencies**

### **1. Monitoring Methods**

Monitoring methods for the monitoring period shall be documented as standard operating procedures and attached to the Monitoring Plan.

Monitoring methods must be sufficient to evaluate Performance Standards to evaluate progress toward attainment of Performance Standards.

### **2. Monitoring Frequencies**

The monitoring period shall take place according to the NRD Restoration Project Schedules, attached as Appendix Q in the Consent Decree. The monitoring period will take place during the 2 years immediately following completion of construction or until the Performance Standards are met, whichever is later. During this period, monitoring will be conducted on an annual basis. Results of annual monitoring events will be compared to Performance Standards to determine if project goals are met, the Monitoring Plan is sufficient, and/or contingency measures are needed.

## **D. Monitoring Report**

Dow shall submit an annual Monitoring Report to the Trustees by January 31st of the year following each year that monitoring activities are conducted per the SOW. Each Monitoring Report will include:

- Methods used for monitoring.
- Any alterations or maintenance required to meet Performance Standards.
- Results of any site evaluation.
- Discussion of results and how they compare against Performance Standards.
- Recommended contingency measures, if any.

- Appendices to include data, maps, and photographs.

#### **E. Project Completion Report**

Dow shall submit a Project Completion Report to the Trustees for review and written approval. The Project Completion Report shall summarize all monitoring activities and Contingency Measures, if needed, as well as any other findings that occurred during the two year monitoring period.

### **VII. Deliverables Summary**

This SOW includes the following deliverables each being summarized in the above sections:

- Environmental Characterization Report (Section IV)
- Preliminary Design Plan (Section V.A)
- Final Design and Implementation Plan (Section V.B)
- Construction Completion Report (Section V.D)
- Monitoring Plan (Section VI)
- Monitoring Reports (Section VI.D)
- Project Completion Report (Section VI.E)

### **VIII. NRD Restoration Project Schedules**

Dow shall complete all activities and submit all deliverables for the Project in accordance with the schedule set forth in or developed pursuant to the NRD Restoration Project Schedules, which is attached to the Consent Decree as Appendix Q, and any other schedules approved by Trustees pursuant to this SOW or Appendix Q. The NRD Restoration Project Schedules sets forth the timeline for major activities for each of the Dow-implemented Projects identified in Section V of the Consent Decree, including Restoration Progress Meetings and the deadlines for all deliverables. Dow may submit reasonable and prudent NRD Project Restoration Schedule modifications to the NRD Restoration Project Schedules to the Trustees for written approval, as provided for in Paragraph 7 of the Consent Decree.

## **IX. Contact Information**

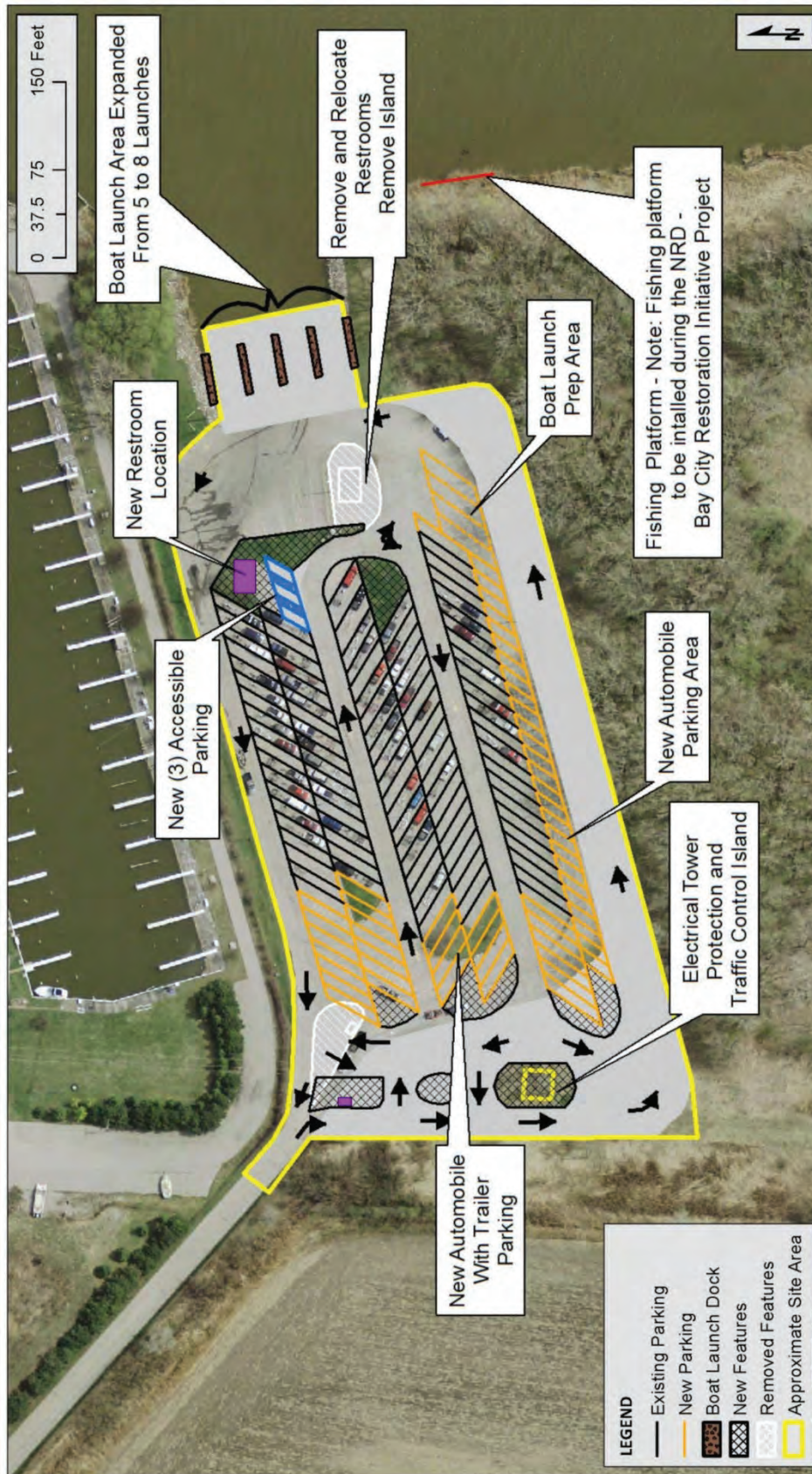
Dow shall submit all Project deliverables via electronic mail to Trustees in accordance with Section XXI (Notice) of the Consent Decree. In addition, the Trustees may identify a reasonable number of contacts to receive hard copies of any deliverables.

Figure 1. Existing MDNR Saginaw River Boating Access Site with outline of proposed conceptual project area





Figure 2. Conceptual plan for expansion of existing MDNR Saginaw River Boating Access Site





APPENDIX H

AGREEMENT FOR CONSERVATION  
EASEMENT

(This instrument is exempt from County and State transfer taxes pursuant to MCL 207.505(a) and MCL 207.526(a), respectively)

This CONSERVATION EASEMENT (Agreement) is created on \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_ (name) married/single individual[s] (*circle one*), or corporation, partnership, municipality, or limited liability company (*circle one*), whose address is \_\_\_\_\_ (Grantor) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE), whose address is P.O. Box 30426, Lansing, Michigan 48909-7958 or Constitution Hall, 5th Floor South, 525 West Allegan Street, Lansing, Michigan 48933 (Grantee) and is being administered by the Superfund Section of the Remediation and Redevelopment Division;

The Grantor is the fee simple title holder of real property located in (*circle one*) the Township/City of \_\_\_\_\_, \_\_\_\_\_ County, and State of Michigan, legally described in Exhibit A, hereinafter referred to as the "Property".

The Grantee is the agency charged with administering the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.101 *et seq.*

The United States of America (United States) acting through the United States Fish and Wildlife Service and the Bureau of Indian Affairs; the State of Michigan (State) represented by its co-trustees: the Grantee, the Michigan Department of Natural Resources, and the Michigan Attorney General; and the Saginaw Chippewa Indian Tribe of Michigan (Tribe) are natural resource trustees (Trustees). The Trustees asserted claims for recovery of natural resource damages pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, as amended 42 U.S.C. § 9601 *et seq.*, Sections 3115(2) and 20126a of the NREPA, MCL 324.3115(2) and 324.20126a, against The Dow Chemical Company (Dow). A Consent Decree was filed on [*insert consent decree date*], with the United States District Court for the Eastern District of Michigan, [*insert case caption and number*] that provides, *inter alia*, for conservation easements or other similar instruments establishing land use restrictions on specified real property owned by Dow and by partners in the local community, including the above described Property, to be enforceable by (1) the Grantee; and (2) by the United States and the Tribe as Third Party Beneficiaries.

Grantor has agreed to grant the Grantee a Conservation Easement that restricts further development to the portion of the Property that is subject to the terms of this Agreement and is legally described in Exhibit B (Easement Premises). The Easement Premises consists of approximately \_\_\_\_\_ acre(s). A survey map depicting the Easement Premises is attached as Exhibit C. The Grantee shall record this Agreement with the county register of deeds.

ACCORDINGLY, Grantor hereby conveys unto the Grantee, forever and in perpetuity, this Conservation Easement as set forth in this Agreement pursuant to Subpart 11 of Part 21, Conservation and Historic Preservation Easement, of the NREPA, MCL 324.2140 *et seq.*, on the terms and conditions stated below.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

1. The purpose of this Agreement is follows:

- A. To protect natural habitat for the benefit of native species of fish, wildlife, and plants,
- B. To preserve open space and to yield a significant public benefit,
  - 1) For the scenic enjoyment of the general public, or

- 2) Pursuant to a clearly delineated Federal, State, or local governmental conservation policy,
- C. To preserve the Easement Premises for outdoor recreation by, or the education of, the general public, that is compatible with the protection of natural habitat and,
- D. To be consistent with:
  - 1) The applicable project description in the Final Restoration Plan/Environmental Assessment for the Tittabawassee River System Natural Resource Damage Assessment (Restoration Plan), and
  - 2) The applicable Statement of Work attached as an Appendix to the Consent Decree, and
  - 3) The Consent Decree filed on [ insert case caption and number ],

These purposes are referred to as the "Purposes" of this Conservation Easement.

2. In order to carry out the Purposes of this Agreement, Grantor, for itself and on behalf of its successors, transferees and assigns, and Grantee, for itself and on behalf of its successors, transferees and assigns hereby agree that the Grantee shall have the right to enforce the terms of this Agreement, and further that the United States and the Tribe shall have the right to enforce the terms of this instrument as Third Party Beneficiaries.
  
3. Except as authorized under the Consent Decree, the Restoration Plan, and the applicable Statement of Work, or as otherwise provided in this Agreement or agreed to by Grantee in furtherance of the purposes of the Consent Decree, restrictions on the Easement Premises include, but are not limited to the items listed in (a) through (o) of this paragraph, and the Grantor shall refrain from, and prevent any other person from, altering or developing the Easement Premises in any way that conflicts with or prevents achievement or maintenance of the Purposes set forth in Paragraph 1 of this Agreement.
  - a) Creation of roads;
  - b) The placement of fill material as defined in Part 303 of the NREPA, MCL 324.30301 et seq., as amended;
  - c) Dredging, removal or excavation of any soil or minerals;
  - d) Drainage of surface or groundwater;
  - e) Construction or placement of any structure;
  - f) Plowing, tilling, or cultivating the soils or vegetation except for habitat management;
  - g) Ranching, grazing, farming, horticulture, silviculture or lumbering;
  - h) Use of chemical herbicides, pesticides, fungicides, fertilizers, spraying with biocides, larvicides or any other agent or chemical treatments, and oil, gas, or mineral exploration and extraction;
  - i) Construction of utility or petroleum lines;
  - j) Storage or disposal of ash, garbage, trash, debris, abandoned equipment or accumulation of machinery, bio-solids or other waste materials, including accumulated vegetative debris, such as grass clippings, leaves, yard waste or other material collected and deposited from areas outside the Easement Premises;
  - k) Use or storage of automobiles, trucks or off-road vehicles including, but not limited to, snowmobiles, dune buggies, all-terrain vehicles, and motorcycles;
  - l) Placement of billboards or signs;
  - m) Use of wetlands for the dumping of untreated storm water or the directing of treated storm water to the Easement Premises at a volume that adversely impacts the hydrology of the wetlands, outside of current municipal or county drainage systems;
  - n) Actions or uses detrimental or adverse to water conservation and purity, and fish, wildlife or habitat preservation;
  - o) All industrial and commercial activity except for de minimis commercial recreational activity.

4. Cutting down, burning, destroying, or otherwise altering or removing trees, tree limbs, shrubs or other vegetation, whether living or dead, is prohibited within the Easement Premises, except for the removal of trees or limbs to eliminate danger to health and safety, to reduce a threat of infestation posed by diseased vegetation, invasive non-native plant species that endanger the health of native species, or as otherwise provided in or authorized by the Consent Decree, the Restoration Plan and the applicable Statement of Work.
5. Grantor is not required to restore the Easement Premises due to alterations resulting from causes beyond the owner's control, including, but not limited to, unauthorized actions by third parties that were not reasonably foreseeable; natural causes or natural disasters, such as unintentional fires, floods, storms, or natural earth movement.
6. Grantor covenants that Grantor has full authority to convey this Conservation Easement and has good and sufficient title to the Easement Premises described in Exhibit B.
7. Grantor covenants that the Easement Premises are free and clear of all liens and encumbrances not beneficial to the natural resources and the Purposes set forth in this Agreement or otherwise impacting the enforceability of this Conservation Easement.
8. Grantor covenants that the Easement Premises is in accordance with 40 U.S.C. § 3111 and the current regulations issued under the authority of 40 U.S.C. § 3111(b)(1), currently titled: "Regulations of the Attorney General Governing the Review and Approval of Title for Federal Land Acquisitions (2016)."
9. Grantor shall continue to have all rights and responsibilities as owner of the property subject to this Agreement. Grantor shall continue to be responsible for the upkeep and maintenance of the Easement Premises to the extent it may be required by law or as otherwise provided in or authorized by the Consent Decree, the Restoration Plan or the applicable Statement of Work. Any document transferring the Easement Premises shall specify the person or entity responsible for upkeep and maintenance of the Easement Premises upon transfer. Grantor shall give the Trustees written notice of the proposed transfer including the full name(s) and address(es) of the prospective transferee(s). Notice shall be sent to the following:

Project Leader, Michigan Ecological Services Field Office  
U.S. Fish and Wildlife Service  
2651 Coolidge Road, Suite 101  
East Lansing, MI 48823  
517-351-2555  
[eastlansing@fws.gov](mailto:eastlansing@fws.gov)

General Counsel, Legal Department  
Saginaw Chippewa Indian Tribe of Michigan  
7070 E. Broadway  
Mt. Pleasant, MI 48858.  
989-775-4027

Michigan Department of Attorney General  
Environment, Natural Resources, and Agriculture Division  
Attn: Assistant in Charge  
6th Floor, G, Mennen Williams Building  
525 West Ottawa Street  
Lansing, MI 48933

10. In accepting this Conservation Easement, Grantee and Third-Party Beneficiaries shall have no liability

or other obligation for costs, taxes, assessments, insurance, maintenance, or other liabilities of any kind related to the Property, inclusive of the Easement Premises. Grantee's and Third-Party Beneficiaries' rights do not include the right, in absence of a judicial decree, to enter the Property for the purpose of becoming an operator of the Property within the meaning of the Comprehensive Environmental Response, Compensation, and Liability Act, NREPA, or any similar statute or regulation. Grantee and the Third-Party Beneficiaries employees, and agents have no liability arising from injury or death to any person or physical damage on the Property. Grantor agrees to indemnify and hold harmless the Grantee and Third-Party Beneficiaries against such claims arising during the term of Grantor's ownership of the Property.

11. Grantee and the Third-Party Beneficiaries, their authorized employees and agents may enter the Property, inclusive of the Easement Premises, at reasonable times to determine whether the Easement Premises as depicted in Exhibit C are being maintained in compliance with the terms of this Agreement, the Consent Decree, the Restoration Plan and Statement of Work; and for enforcement of this Conservation Easement.
12. This Agreement shall be binding upon the successors and assigns of the parties and shall run with the land in perpetuity, unless modified or terminated by written agreement of the Grantor and Grantee after the Third-Party Beneficiaries have given their written approval. Any modification of this Agreement shall be consistent with the Purpose set forth in Paragraph 1. The Grantee will file with the appropriate register of deeds any such Third-Party Beneficiaries' approved modification or termination of this instrument.
13. Grantee may transfer this Conservation Easement to another principal department of the State of Michigan ("transferee agency") after providing notice to the Grantor and Third-Party Beneficiaries. Any such transfer shall be filed with the appropriate register of deeds to document the Grantee following the transfer. No modifications to the substance or operative terms of this Agreement may be made under the terms of this paragraph, and such transfer must be consistent with the Purpose set forth in Paragraph 1 of this Agreement.
14. In addition to the right of the Grantor, Grantee, and Third-Party Beneficiaries to enforce this Agreement, it is also enforceable by others against the owner of the land, in accordance with Part 21, Subpart 11 of the NREPA, MCL 324.2140 *et seq.*, as amended.
15. Grantor shall indicate the existence of this Agreement on all future deeds, mortgages, land contracts, plats, and any other legal instrument used to convey an interest in the Easement Premises.
16. A delay in enforcement shall not be construed as a waiver of the Grantee's or Third-Party Beneficiaries' rights to enforce the conditions of this Agreement.
17. This Agreement shall be liberally construed in favor of maintaining the Purpose of the Conservation Easement.
18. If any portion of this Agreement is determined to be invalid by a court of law, the remaining provisions will remain in force.
19. This Agreement will be construed in accordance with Michigan law.
20. The terms 'Grantor' and 'Grantee' wherever used in this Agreement, and any pronouns used in place thereof, shall include, respectively, the above-named Grantor and its successors and assigns, and the above-named Grantee and its successors and assigns.

**LIST OF ATTACHED EXHIBITS**

- Exhibit A:** A legal description of the Grantor's property, inclusive of the Easement Premises.
- Exhibit B:** A legal description of the Easement Premises.
- Exhibit C:** A survey map depicting the Easement Premises that also includes identifiable landmarks, such as nearby roads, to clearly identify the easement site.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above written. In signing this Agreement, the Signatory covenants that he or she has the authority to convey the Conservation Easement on behalf of the Grantor.

GRANTOR:

Signature: \_\_\_\_\_

\_\_\_\_\_  
Type/Print Grantor's Name exactly as signed

\_\_\_\_\_  
Title (if signing on behalf of an organization)

\_\_\_\_\_  
Organization Name (if signing on behalf of an organization)

STATE OF MICHIGAN }  
                                  } ss  
COUNTY OF \_\_\_\_\_}

IF SIGNING ON BEHALF OF AN ORGANIZATION, THIS MUST BE COMPLETED:

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

by \_\_\_\_\_, (name[s]) the \_\_\_\_\_, (title)

of \_\_\_\_\_, (Organization name) a \_\_\_\_\_, (state) corporation,  
partnership, municipality, or limited liability company (circle one), on behalf of the organization.

\_\_\_\_\_  
(Signature of Notary Public)

\_\_\_\_\_  
(Typed or Printed name of Notary Public)

My commission is in: \_\_\_\_\_ County, Michigan

Acting in: \_\_\_\_\_ County, Michigan

My Commission Expires: \_\_\_\_\_

(OR) IF SIGNING AS AN INDIVIDUAL OR MARRIED PERSON, THIS MUST BE COMPLETED:

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

by \_\_\_\_\_, (name[s]) \_\_\_\_\_ (marital status).

\_\_\_\_\_  
(Signature of Notary Public)

(Typed or Printed name of Notary Public)

My commission is in: \_\_\_\_\_ County, Michigan

Acting in: \_\_\_\_\_ County, Michigan

My Commission Expires: \_\_\_\_\_

GRANTEE:

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
REMEDATION AND REDEVELOPMENT DIVISION

\_\_\_\_\_  
Remediation and Redevelopment Division Director

STATE OF MICHIGAN}  
COUNTY OF INGHAM} ss

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2018 by the Division Director, Remediation and Redevelopment Division, State of Michigan, on behalf of the Michigan Department of Environmental Quality.

\_\_\_\_\_  
(Signature of Notary Public)

\_\_\_\_\_  
(Typed or Printed name of Notary Public)

Acting in: Ingham County, Michigan

My Commission Expires: \_\_\_\_\_

Form Drafted By:  
Trustees for Natural Resources

**AFTER RECORDING, RETURN TO:**  
**Michigan Department of Environment, Great Lakes, and Energy**  
**Superfund Section**  
**Remediation and Redevelopment Division**  
**Constitution Hall, 5th Floor South**  
**P.O. Box 30426**  
**Lansing, Michigan 48909-7958**



## APPENDIX I

### **Tittabawassee River Conservation Program – Green Corridor Project**

A. Background. Paragraph 7.b of the Consent Decree provides for Dow to acquire easements and property use restrictions (“covenants”) on property within the 8 year floodplain of the Tittabawassee River in order to establish and preserve an undeveloped “green corridor” along stretches of the Tittabawassee River floodplain. As described in Paragraph 7.b of the Consent Decree, as of July 12, 2018, Dow had already acquired covenants on approximately 1795 acres of property within the 8 year floodplain of the Tittabawassee River as part of its Tittabawassee River Conservation Program (“TRCP”).

B. Purpose. The purpose of this Appendix I is to provide a description of substantive terms and requirements applicable to covenants that are included as part of the TRCP and this Green Corridor Project. In addition, this Appendix establishes certain requirements that shall be applicable to any alternative restoration projects proposed by Dow in the event that Dow is unable to acquire covenants on an additional 205 acres of property within the 8 year floodplain of the Tittabawassee River within the time frames specified in Paragraph 7.b of the Consent Decree.

C. Terms of Covenants. The covenants acquired or to be acquired pursuant to Paragraph 7.b of the Consent Decree shall promote conservation in a buffer zone along the Tittabawassee River to enhance the river’s natural and scenic beauty, improve the river’s natural environment, and reduce erosion and runoff through implementation of restrictions described below in this Paragraph C. In addition, such covenants may (a) provide access for Dow to perform floodplain soil investigations, and to conduct cleanup activities on the property, if needed, and (b) include restrictions to assure that any such cleanup activities remain protective of human health and the environment.

1. The restrictions enumerated in the covenants include the following:

- The owner shall not remove soil from the floodplain.
- The owner shall not allow poultry or livestock to feed or graze in the floodplain.
- The owner shall not allow any portion of the conservation areas of the property to be converted to an area that is maintained for residential use (e.g. converted to lawns, play areas, or gardens).

2. Subject to the restrictions listed in the covenants, owners can continue to use their properties as they do today. For example, owners are still allowed to:

- Access the conservation areas, including for hunting or recreation,
- Maintain a pathway to the river,
- Trim or harvest trees and downed wood, and
- Plant trees, grasses, shrubs or other plants in order to supplement or restore a natural landscape.

3. Covenants acquired after July 12, 2018 shall be consistent with and substantially in the form attached hereto as Figure 1.

4. Each covenant shall be recorded in the property's title records at the County Register of Deeds and bind future owner(s) of the property.

5. If any property is not in compliance with the covenants, the Trustees may request Dow to enforce the requirements of the covenants.

D. Alternative Restoration Projects. To the extent that Dow is unable to acquire all of the covenants as required by Paragraph 7.b of the Consent Decree within 48 months after the Effective Date of the Consent Decree, Dow shall submit to the Trustees for review and approval a plan and schedule for implementing one or more proposed alternative restoration projects meeting the requirements of this Paragraph D. Such alternate restoration projects shall provide ecological benefits at least as great as the benefits associated with that portion of the acres of additional covenants that Dow is unable to complete within 48 months of the Effective Date of the Consent Decree and shall be consistent with the examples in Table 1 below.

Table 1. Examples of alternate restoration projects and acres required

Nature of Alternate Restoration Project	Number of Acres Required For Alternate Project
Acquisition of covenants to preserve existing habitat similar to Tittabawassee River floodplain habitats on property outside 8 year floodplain of the Tittabawassee River	Dow shall acquire covenants on two acres of property outside the 8 year floodplain in order to offset one acre of covenant referred to in Paragraph 7.b of the Consent Decree
Restoration of farmland to natural habitat within the 8 year floodplain of the Tittabawassee River, with protection in perpetuity	Dow shall restore and protect in perpetuity one acre of farmland within the 8 year floodplain in order to offset 8 acres of covenants referred to in Paragraph 7.b of the Consent Decree
Restoration of farmland to natural habitat outside the 8 year floodplain of the Tittabawassee River, with protection in perpetuity	Dow shall restore and protect in perpetuity one acre of farmland outside the 8 year floodplain in order to offset 4 acres of covenants referred to in Paragraph 7.b of the Consent Decree

Dow shall implement all approved alternate restoration projects in accordance with the terms approved by the Trustees, and Dow shall complete implementation of all such projects within 5 years of the Effective Date of the Consent Decree.

E. Monitoring, Maintenance, and Reporting

1. Within one year of the Effective Date of the Consent Decree, Dow shall submit to the Trustees for review and approval a Site Control Plan (SCP) describing provisions for monitoring, maintenance, and reporting associated with the TRCP Green Corridor Project. The SCP shall include the following:

- a. a description of the types of detailed records that Dow will maintain on each of the properties with covenants
- b. a description of the subset of these detailed records that will be submitted to Trustee and a schedule for these submittals

- c. a provision for Trustee review of any or all of Dow's detailed records upon request, including but not limited to viewing maps showing current aerial photography and covenant boundaries
  - d. a provision for Dow to provide Trustees with a list of properties, identified only by a serial number cross-referenced to Dow's detailed information, with the associated total acreage and acreage covered by the covenants for each property.
  - e. A plan for monitoring, reporting, and ensuring compliance with the covenants described in this Appendix I, including monitoring to assess for changes in land use.
2. Dow shall implement the SCP.
3. By January 31<sup>st</sup> of each year following the Effective Date of the Consent Decree, Dow shall submit a report describing the status of its implementation of the requirements of Paragraph 7.b of the Consent Decree and this Appendix I. This report may be all or part of a report required by the SCP and in any case shall include:
  - a. a summary indicating the total number of properties and total acres within the 8 year floodplain of the Tittabawassee River where Dow has acquired and recorded covenants that meet the requirements of this Appendix I
  - b. a list of properties, identified only by a serial number cross-referenced to Dow's detailed information, with the associated total acreage and acreage covered by the covenants for each property
  - c. a description of any actions undertaken by Dow during the reporting period to monitor or secure compliance with the covenants.
4. If Dow is not able to acquire covenants in accordance with the requirements of Paragraph 7.b of the Consent Decree and this Appendix I on a total of 2000 acres of property within the 8 year floodplain of the Tittabawassee River within 48 months of the Effective Date of the Consent Decree, then the next annual report submitted by Dow after expiration of the 48 month period shall also:
  - a. provide a description of the efforts undertaken by Dow to acquire additional covenants meeting such requirements, and
  - b. describe the status of any proposed alternative restoration projects submitted to or approved by Trustees.

5. Following approval by Trustees of one or more alternative restoration projects in accordance with Paragraph 7.b of the Consent Decree and this Appendix I, Dow shall implement the project or projects and submit periodic reports on the progress of implementation of each such alternative restoration project, in accordance with the schedule in the approved plan for such project.

Figure 1

## **CONSERVATION COVENANT**

**Owner(s):**

**Property:**

**Parcel ID:**

This Conservation Covenant ("Covenant") is made by and between the Owner / grantor and The Dow Chemical Company ("Dow") / grantee and applies to the Property listed above. The Property is described on Attachment 1 and a drawing of the Property is provided on Attachment 2.

Dow, pursuant to plans approved by the United States Environmental Protection Agency ("EPA"), is investigating the Tittabawassee River ("River") floodplain and, in appropriate circumstances, is taking action to address contamination that is present in soil in areas that are subject to regular flooding. The purpose of this Covenant is to a) provide access to the Property so that Dow can investigate the soil in the floodplain, b) authorize Dow to conduct cleanup activities at the Property if those activities are required by EPA or the Michigan Department of Environment, Great Lakes, and Energy (EGLE), formerly the Michigan Department of Environmental Quality ("MDEQ"), c) put in place restrictions to ensure that the cleanup activities remain protective of human health and the environment in the future, and d) promote conservation in a buffer zone along and near the River in order to enhance the River's natural and scenic beauty, improve the River's natural environment, and reduce erosion and runoff.

### **Definitions**

"Cleanup Activities" means activities undertaken to cleanup or otherwise address contamination in the Floodplain at the Property, including, but not limited to, excavating and replacing contaminated soil with clean soil; stabilizing the riverbank or sediments in the River; installing erosion control systems and vegetation; installing exposure barriers, such as layers of clean topsoil; placing permanent markers on the Property to demarcate the Floodplain; and planting new trees, shrubs, landscaping or other vegetation. All Cleanup Activities shall be conducted in accordance with a plan or order approved by EPA or EGLE for the Property.

"Conservation Area" means areas within the Floodplain that are not Maintained Residential Areas as shown and labeled on Attachment 2. Conservation Areas may include farm fields; fields that are left

fallow; natural or unmaintained areas, such as forest, wetland, meadow, or brushy riverbank; or other areas shown on Attachment 2 that are not Maintained Residential Areas.

"Dow" means The Dow Chemical Company, a Delaware corporation having an address of 2030 Dow Center, Midland, Michigan 48667, its subsidiaries and successor entities, and those persons or entities acting on Dow's behalf.

"EGLE" means the Michigan Department of Environment, Great Lakes, and Energy, any successor entity, and those persons or entities acting on its behalf (formerly, the MDEQ).

"EPA" means the United States Environmental Protection Agency, any successor agency, and those persons or entities acting on its behalf.

"Floodplain" means the River's eight year floodplain as depicted and labeled on Attachment 2.

"Maintained Residential Area" means any portion of residential property in the Floodplain that is routinely maintained, including yards and lawns, gardens, flower beds, and landscaped areas.

"MDEQ" means the Michigan Department of Environmental Quality, any successor entity, and those persons or entities acting on its behalf.

"Owner" means the current owner(s) of the Property, any future fee simple owner(s), and the owner's tenants and agents.

NOW THEREFORE,

The Owner, for and in consideration of the sum of \$xx,000, the receipt and sufficiency of which is acknowledged by the Owner, grants to Dow, and agrees and declares that the Property shall be subject to the following restrictions, covenants, and other terms:

#### **Restrictions**

1. Floodplain: The Owner shall not: a) remove soil from the Floodplain, or b) allow poultry or livestock to feed or graze in the Floodplain.

2. Conservation Areas: The Owner shall not a) allow any portion of a Conservation Area to be used or converted into a Maintained Residential Area, or b) remove soil from Conservation Areas.

Examples of activities that are allowed in Conservation Areas so long as the activities are carried out in compliance with all applicable laws: a) accessing the Conservation Area, including for hunting or recreation, b) maintaining a pathway to the River, c) trimming or harvesting trees and downed wood, or d) planting trees, grasses, shrubs or other plants in order to supplement or restore a natural landscape.

3. Outside the Floodplain: No restrictions apply.

#### **Response Activities**

4. Access, Investigation, and Cleanup: Dow, EPA, and the EGLE have the right to enter the Property at reasonable times for the purpose of a) investigating soil and sediment at the Property, including taking and analyzing soil samples from the Floodplain, b) conducting Cleanup Activities that are required by EPA or EGLE for the Property, c) monitoring and maintaining the Cleanup Activities, and d) determining and monitoring compliance with this Covenant. EPA's access rights under this Covenant shall terminate upon the completion of the Cleanup Activities at the Property pursuant to the Administrative Settlement Agreement and Order on Consent No. V-W-15-C-018 between Dow and EPA and EPA's final approval of those Activities. The Owner will be notified and consulted at least two days prior to accessing the Property. The Owner shall not disturb, remove, or interfere with the effectiveness and integrity of any Cleanup Activities.

#### **Miscellaneous**

5. Reservation of Owner Rights: Except as expressly set forth in this Covenant, this Covenant does not change or alter the Owner's property rights. The Owner may continue to access all areas of the Property, including the Floodplain, and has the right to sell, rent, mortgage, bequeath, donate or otherwise convey the Property.
6. Indemnity: Dow agrees to indemnify Owner for any and all liability incurred by Owner arising out of Dow's performance of investigation, monitoring, or Cleanup Activities at the Property pursuant to this Covenant.



7. Additional Filing: The Owner grants Dow the right to record with the County Register of Deeds an updated Property drawing or drawings (Attachment 2) showing specific areas on the Property where Cleanup Activities have been implemented if EPA requires that an updated drawing or drawings be recorded.

8. Binding Nature, Term: Except as provided in paragraph 9, this Covenant shall run with the Property in perpetuity and shall be binding on the Owner; future Owners; and all current and future successors, tenants, and easement holders.

9. Entire Agreement, Modification: This Covenant, including any attachment or addendum, represents the entire agreement between Dow and the Owner and cancels and replaces any prior agreement, whether written or verbal. This Covenant may be modified only in writing signed by the Owner and Dow with the approval of EPA and EGLE.

10. Enforcement: Dow, EPA, or EGLE may enforce the prohibitions, restrictions and covenants set forth in this Covenant by legal action in a court of competent jurisdiction.

11. Severability: If any provision of this Covenant is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provision, and all other provisions shall continue unimpaired and in full force and effect.

12. Assignment: Dow may assign its rights and interests in this Covenant, in whole or in part, upon prior written notice to Owner.

13. Recording: Dow shall record this Covenant with the County Register of Deeds.

14. EPA and EGLE: EPA and EGLE are third party beneficiaries of this Covenant between the grantor and grantee. Nothing in this Covenant shall limit or otherwise affect EPA's or EGLE's rights under federal or state law to access or undertake environmental response activities at the Property.

15. Information: More information related to the investigation and cleanup is publicly available at the Alice and Jack Wirt Public Library, 500 Center Avenue, Bay City; the Grace A. Dow Memorial Library 1710 W. St. Andrews Street, Midland; and the Hoyt Main Library, 505 Janes Avenue, Saginaw.

**OWNER(S)**

\_\_\_\_\_

State of Michigan )

)

County of Saginaw )

This Covenant was acknowledged before me on \_\_\_\_\_, 2018, by  
\_\_\_\_\_.

Signed: \_\_\_\_\_

Print:

Notary Public, State of Michigan, County of Midland

Commission Expires

Acting in the County of Saginaw

**THE DOW CHEMICAL COMPANY**

\_\_\_\_\_

Title:

State of Michigan )

)

County of \_\_\_\_\_ )

This Covenant was acknowledged before me on \_\_\_\_\_, 2018, by  
Chemical Company a Delaware corporation on behalf of the corporation.

of The Dow

Signed: \_\_\_\_\_

Print:

Notary Public, State of Michigan, County of Midland

Commission Expires

Acting in the County of Saginaw

PREPARED BY:

## APPENDIX J

### Shiawassee National Wildlife Refuge Restoration Project Description

As provided in the Consent Decree, Trustees will disburse funds from the Restoration Account to fund restoration activities that will be undertaken by the United States Fish and Wildlife Service (“USFWS”)<sup>1</sup> to restore and enhance multiple units of the Shiawassee National Wildlife Refuge (“NWR”) as described herein and shown in Figure 1. The proposed restoration work includes installing water control structures at key locations, reconfiguring dikes between NWR units, installing additional water gauges, establishing and maintaining native vegetation, controlling invasive species, monitoring the success of the restoration project, and performing additional management if indicated by the monitoring results. Major elements of the restoration project are described in the following paragraphs.

Cass River Connectivity. Hydrologic connection between Cass River and Eagle Marsh will be enhanced to allow increased flow and fish passage. Water management will be improved in Butch’s Marsh and Moist Soil Units 3, 4, and 5 by upgrading and/or repairing existing infrastructure. These improvements are intended to allow fish to be able to swim among the Cass River, Eagle Marsh, Butch’s Marsh, and North Marsh and thus use the marshes for spawning and nursery areas.

Ferguson Bayou Restoration. Ferguson Bayou will be hydrologically reconnected to the Maankiki Marsh Unit through installation of multiple water control structures combined with removal of a section of existing dike.

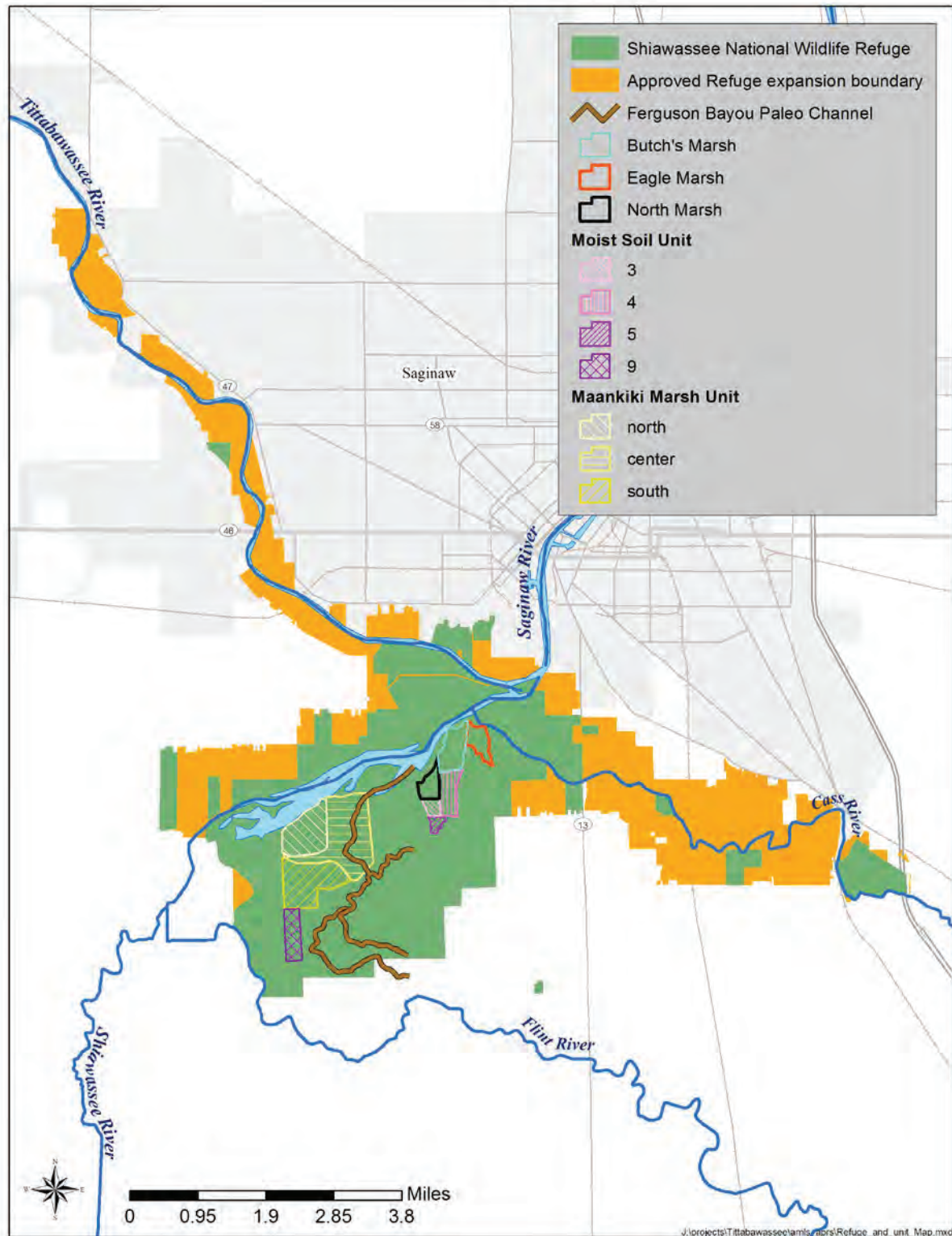
Moist Soil Unit 9. This 100 acre unit will be converted to a moist soil unit. Conceptual plans for achieving this include the addition of multiple water control structures in Eastwood Drain, performing maintenance in the Eastwood Drain, constructing a dike at an adjacent moist soil unit to allow independent manipulation of water levels among the moist soil units, and establishing and maintaining appropriate vegetation for at least five years.

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<sup>1</sup> Nothing in the Consent Decree or the Appendices shall be interpreted or construed as a commitment or requirement that U.S. Department of Interior shall obligate or spend funds in contravention of the Anti-Deficiency Act, 31 U.S.C. §1342, or any other applicable provision of law.

Monitoring. Funding will be provided to assess the impacts of restoration work, which is expected to consist of sampling and surveys of fish, macroinvertebrates, mussels, and nutrients to build on existing baseline data. In addition, funding may be used to supplement the ongoing USFWS surveys of bird use, vegetation quality, and invasive species in the affected units of the NWR, if necessary and based on USFWS's assessment of monitoring priorities with funding available.

Figure 1. Shiawassee National Wildlife Refuge with location of management units to be affected by the restoration



## APPENDIX K

### Thomas Township Nature Preserve Project Description

The purpose of this restoration project is to establish a nature preserve on approximately 60 acres of land owned by Thomas Township adjacent to the Tittabawassee River. The property is shown on Figure 1. Currently, most of the property is being farmed, and the project will include measures to restore the farmland on this property to natural floodplain habitat. The conceptual plan for the Preserve includes multi-use trails, signage, observation decks, boardwalks, pavilions, and a kayak and canoe launch. The Preserve will include facilities that will allow the public to use and enjoy the natural area and provide opportunities for fishing, kayaking, and canoeing on the Tittabawassee River.

The Trustees will enter into a separate funding agreement with Thomas Township<sup>1</sup>. As provided in the Consent Decree, Trustees will disburse funds from the Restoration Account, in accordance with the terms of such funding agreement, for Trustee-approved restoration activities at the Thomas Township Nature Preserve (“Preserve”). Thomas Township will use the funds disbursed by the Trustees to implement restoration activities, including activities to restore, enhance, and preserve habitat on the Preserve and to provide increased public access and recreational activities at the Preserve and the Tittabawassee River, as described below.<sup>2</sup>

Thomas Township will propose plans to the Trustees for Trustees’ review and approval prior to commencing restoration activities. If the plans are approved, the Trustees will provide funding toward the following activities:

- Perform a site evaluation and prepare a written report for the Trustees that will determine the most appropriate habitat restoration activities in order to restore and enhance approximately 60 acres to natural habitat types including wetlands based on topography, soil types, and potential hydrology.

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<sup>1</sup> “Thomas Township” refers to any governmental entity that has the authority to enter into agreements on behalf of Thomas Township.

<sup>2</sup> Nothing in the Consent Decree or the Appendices shall be interpreted or construed as a commitment or requirement that DOI shall obligate or spend funds in contravention of the Anti-Deficiency Act, 31 U.S.C. §1342, or any other applicable provision of law.

- Provide written designs for habitat restoration activities including objectives and plans to create natural habitat areas including altering drainage and grading to improve hydrology and provide for wetland restoration, where appropriate, using the natural seed bed where possible along with seeding and planting with native species, and monitoring and maintaining vegetation. If feasible, the plans should also include provisions for increasing the hydrologic connectivity between the Preserve and the Tittabawassee River.
- Implement habitat restoration activities based on the approved written designs.
- Based on a written monitoring and management plan, monitor habitat restoration areas and manage vegetation, including control of invasive species
- Depending on costs of restoration activities and estimated costs of future monitoring and maintenance of the restoration, provide funding for some of the costs of recreational amenities (e.g. trails, interpretive signs, boardwalks, kayak and canoe launch), not to exceed 15% of the total funding provided in the agreement with the Trustees, unless otherwise agreed to by the Trustees.

The Trustees shall provide written approval of the site evaluation report, designs, and the monitoring and management plan.



Figure 1. Location and conceptual plan for Thomas Township Nature Preserve



## **APPENDIX L**

### **Saginaw Riverfront Park Restoration Project Description**

As provided in the Consent Decree, Trustees will disburse funds from the Restoration Account for restoration activities that will be undertaken by the Michigan Department of Natural Resources (“MDNR”) on a 332 acre parcel of land, located along the Saginaw River in the City of Saginaw, that is currently owned by the RACER Trust (the “Property”)<sup>1</sup>.

As described below, the Property, which was the site of the former General Motors Saginaw Malleable Iron Plant, will be restored and developed into a park (the “Saginaw Riverfront Park”) that will provide passive recreation activities in the City of Saginaw. Recreation opportunities will include hiking trails, biking trails, wildlife viewing, and fishing. The location of the park is shown in Figure 1. It is anticipated that the MDNR will enter into an agreement with Saginaw County to operate the Saginaw Riverfront Park.

Based on plans to be proposed by MDNR and/or Saginaw County, the Trustees will provide funding toward the following:

- Habitat restoration work at the Property that may include, but is not limited to, prairie, wetland, or forest stand improvement or enhancement
- Monitoring of habitat restoration areas and managing vegetation, including control of invasive species
- Provision of up to \$150,000 for matching costs associated with installation of trails, interpretive signs, boardwalks, bridges, wildlife viewing, and fishing platforms
- Provision of up to \$750,000 to provide for long-term operations and maintenance costs by the owner and/or operator of the park.

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<sup>1</sup> RACER Trust and the Michigan Department of Natural Resources (MDNR) have executed an exclusive option agreement for the transfer of the Property to MDNR.



Figure 1. Location of Saginaw Riverfront Park



## **APPENDIX M**

### **Saginaw Bay Fish Spawning Reef Project Description**

As provided in the Consent Decree, Trustees will disburse funds from the Restoration Account to the Michigan Department of Environment, Great Lakes, and Energy (formerly known as the Michigan Department of Environmental Quality), or other appropriate entity, to fund restoration of rock reef spawning habitat in Saginaw Bay and monitoring of project results. Funding will be used for project design, permitting, construction of one or more spawning reef structures in Saginaw Bay, and monitoring of the reef structures and their effects on fish and other biota.

This project is expected to diversify spawning habitat and contribute to a more stable and resilient Saginaw Bay fishery. Specifically, this project is expected to create reef habitat that will be utilized by important recreational (e.g., Walleye, Lake Trout) and commercial (e.g., Lake Whitefish) fisheries, and complement efforts to reintroduce and reestablish threatened species (e.g., Cisco).

The project will be designed based on findings from the Saginaw Bay spawning reef pre-restoration assessment conducted by a partnership that includes Bay County, Sea Grant, Purdue University, Michigan Department of Natural Resources, Michigan Department of Environment, Great Lakes, and Energy (EGLE), Michigan Office of the Great Lakes, U.S. Geological Survey and others. EGLE will propose design and construction plans to the Trustees for Trustees' review and approval. Pre-restoration assessment work has identified several locations for reef restoration that are expected to have a high probability of creating productive fish spawning habitat with minimal sedimentation (Figure 1). Conceptually, reef restoration would consist of placing native cobble and gravel three to four feet thick over approximately one acre of Saginaw Bay bottom such that the resulting water depth above the reef area would be approximately five to seven feet.



Figure 1. Potential locations for two Saginaw Bay spawning reef restoration sites



## **APPENDIX N**

### **Saginaw Chippewa Tribe Restoration Project**

As provided in the Consent Decree, Trustees will disburse funds from the Restoration Account to fund restoration activities that will be undertaken by the Saginaw Chippewa Indian Tribe of Michigan (Tribe) to identify and restore agricultural land to wetlands. At present, the Tribe has not specifically identified land to restore but expects to be able to purchase and restore up to 80 acres in the Saginaw Bay watershed as this Tribal Cultural Uses Restoration Project (“Project”). The Tribe uses wetland areas for hunting, fishing, and gathering practices, important to sustaining cultural activities. Depending on the location of Project land, some amount of lakeplain prairie or upland habitat may be restored or protected in addition to the wetlands being restored.

For the Project, the Tribe will identify potential wetland restoration locations that are expected to have a high probability of successful restoration based on soil type, hydrology, position in the watershed, and traditional ecological knowledge. In selecting lands for the Project, the Tribe will also prioritize locations that reduce fragmentation of natural spaces. Conceptually, the Project would prioritize the purchase of land from willing sellers adjacent to lands owned by or held in trust for the Tribe and/or owned or managed by the Saginaw Basin Land Conservancy. This would include areas in the following three nature preserves along Saginaw Bay: Wah Sash Kah Moqua Nature Preserve, Saganing Nature Preserve, and Standish Nature Preserve. Indigenous plants, shrubs, and trees restored or preserved on Project land will be used to provide multiple benefits, including providing cultural uses, managing stormwater, reducing soil erosion, and absorbing excess nutrients from surrounding areas. Finally, trails with interpretative signs may be included in the Project to support educational efforts.

## **APPENDIX O**

### **Rear Range Lighthouse Renovation and Preservation Funding Project Description**

#### **I. Purpose**

The purpose of this Appendix O is to describe the requirements for the Rear Range Lighthouse Renovation and Preservation Funding Project ("Project").

#### **II. Project Description**

The historic Rear Range Lighthouse is located in Bay City, Michigan near the Saginaw River outlet to Lake Huron, and contiguous with the Bay City Restoration Project described in Appendix F of the Consent Decree between Dow and the Trustees for Natural Resource Damages to which this Appendix is attached (see Figure 1). The Project is located on property currently owned by Dow. The Project will facilitate renovations of the historic lighthouse and ensure preservation of the structure for public access and education regarding the history of the lighthouse and its impact on the Saginaw Bay area.

#### **III. Project Requirements**

Dow will implement the Project requirements, which consist of the following:

- A. Provide oversight and funding for the renovation of the historical Saginaw River Rear Range Lighthouse.
- B. Designate and preserve approximately 3 acres of real estate at the Project location, depicted in Figure 2, for use for the benefit of the public to include the renovated lighthouse.
- C. Provide funds for construction of public access infrastructure and connection to public utilities needed to renovate the lighthouse and open it to the public.

## **A. Project Oversight and Funds**

Dow shall provide up to \$1,000,000, but in no case less than \$800,000 (“Project Funds”) for renovation of the Saginaw River Rear Range Lighthouse to preserve the structure and allow for public access. Dow will oversee and manage the renovation of the lighthouse. The Project Funds shall be used for the following, to be completed within 5 years of the Effective Date of the Consent Decree between Dow and the Natural Resource Damages Trustees:

1. Repairs to preserve the exterior of the building, (brick, windows, roof, tower, light room and chimney) and includes repair and painting all wood on the exterior and windows.
2. Replacing deteriorated trim and fascia.
3. Repairs or replacement of the deck structure and concrete support columns that surrounds the lighthouse.
4. Repairing and painting existing steel handrail and steel decking.
5. Remove and repair all loose plaster and wood within the interior and repaint.
6. Reconstruction of the interior stairs, doors and walls of the lighthouse.
7. Public access, public parking and educational signage regarding the historical role of the lighthouse on maritime activities on the Saginaw River and Bay.
8. Inspections by licensed engineers or local building inspectors to ensure public safety at the lighthouse.

To the extent feasible and consistent with local law, the renovation will preserve the historical structure to represent the period when the lighthouse was in operation using modern materials of construction.

## **B. Land Use and Preservation, and Conservation Easement**

At least 30 Days prior to any transfer of Dow’s interest in any portion of the property where the Project is located, Dow shall notify the State and obtain approval for the proposed transfer from the Project Coordinator for the Michigan Department of Environment, Great Lakes, and Energy (EGLE), formerly MDEQ, as defined in Section VIII of the 2010 Administrative Settlement Agreement and Order on Consent [AOC V-W-10-C-942]. The property shall be used for (1) public access to the lighthouse and related historic and educational programs and events; and (2) associated public parking. Dow shall protect the property in



perpetuity through a conservation easement in a form substantially similar to Appendix H to the Consent Decree, or a similar recordable instrument, that is approved by EGLE and that specifies use of the property for educational and environmental stewardship purposes.

### **C. Public Access**

Pursuant to the Consent Decree, Dow will perform work on an adjacent parcel (the Bay City Ecological Restoration Project, described in Appendix E), according to the schedules in Appendix Q of the Consent Decree. In addition to the requirements for that project in Appendix E, Dow shall improve an existing road, or, if necessary, construct a new, two-lane gravel road that provides public access to the Lighthouse from the Bay City Ecological Restoration Project features at the same time that it implements the construction requirements in Appendix E.

### **D. Infrastructure Including Public Utilities**

Within three years after the Effective Date of the Consent Decree, Dow shall ensure at Dow's own cost that public utility lines for gas, electricity, water, and sewer or septic system are in place to service the Project location.

### **E. Extent of Project**

The funding, access and infrastructure obligations set forth in A through D are the only requirements for Dow related to the improvement, operation or maintenance of Lighthouse. If a third party takes ownership of the Lighthouse, future operation and maintenance costs for the Lighthouse shall be managed based on agreements between Dow and the third party. The State of Michigan will be the Grantee of the protections imposed on the Project Location in the conservation easement required as part of this Project, and will have enforcement rights under that agreement, but the State of Michigan has no other obligations related to the improvement, operation, or maintenance of the Lighthouse or associated property.

## **F. Project Meetings, Schedules and Deliverables**

### **Project Meetings**

Dow shall hold regular update meetings, at least one meeting every six months unless a different schedule is agreed upon by the EGLE Project Coordinator. The meetings will be used to discuss project status and schedule to meet the project requirements including, but not limited to, a status update on progress made since the last meeting, upcoming plans and activities, overall project schedule and review of upcoming deliverables.

### **Project Schedule**

Dow shall complete all activities and submit all deliverables for the Project in accordance with an EGLE-approved schedule. A preliminary Project schedule shall be submitted within six months of the Effective Date of the Consent Decree. Schedule modifications may be made with the written approval of the Project Coordinator identified in this Project Description.

### **Deliverables Summary**

- Project Schedule
- Renovation Design Plan
- Construction Completion Report
- Conservation Easement
- Project Completion Report

### **Contact Information**

Dow shall submit all Project deliverables via electronic mail to the EGLE Project Coordinator as defined in Section VIII of the 2010 Administrative Settlement Agreement and Order on Consent [AOC V-W-10-C-942].

Figure 1. BaySail and Lighthouse Projects.



## **APPENDIX P**

### **BaySail Environmental Education Program Project Description**

#### **I. Purpose**

The purpose of this Appendix P is to describe the requirements for the BaySail Environmental Education Program Project.

#### **II. Project Description**

The BaySail Environmental Education Program is a community-based education program located in Bay City, Michigan, providing a hands-on learning experience in environmental science on the Saginaw River and Saginaw Bay. BaySail has provided both land and water-based educational opportunities for the public since 1998.

Dow owns approximately 400 acres of land near the Saginaw River outlet to Lake Huron, as described in Appendix F of the Consent Decree (Figure 1). This Project includes the transfer or lease by Dow of approximately 6 acres of this land to a third party agreed upon by Dow and the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The third party, at its own cost, will construct an Environmental Education Center for its own use as well as to facilitate the BaySail Environmental Education Program to fulfill the requirements of this Project. The Project will also include public access, public parking, and space for mooring for BaySail ships.

#### **III. Project Requirements**

Dow will implement the Project Requirements, which consist of the following:

A. Dow shall transfer or lease approximately 6 acres of real estate at the Project location to a third party to construct an Environmental Education Center that will include facilities for BaySail Environmental Education Programs.

B. Dow shall provide funds for BaySail's lease payments for use of the Environmental Education Center as specified herein.

C. Dow shall establish public access to the Project location.

D. Dow shall provide funds for and manage the process of installation of public parking and connections to public utilities, as needed to construct and operate the Environmental Education Center.

#### **A. Land Preserved for Environmental Education Program**

Dow shall transfer or lease approximately 6 acres of property associated with the Project, as specified in Figure 1, to a third party identified to EGLE by Dow within five years of the Effective Date of the Consent Decree. At least 30 Days prior to any transfer or lease of Dow's interest in any portion of the property where the Project is located, Dow shall notify the State of Michigan (State) and obtain approval for the proposed transfer or lease from the Project Coordinator for the EGLE as defined in Section VIII of the 2010 Administrative Settlement Agreement and Order on Consent [AOC V-W-10-C-942]. In evaluating a proposed transferee of the property, EGLE will consider the proposed transferee's ability and commitment to maintain the property and maintain ongoing and active environmental education and environmental stewardship programming at the property. If no third party is identified and approved as a transferee or lessee within five years of the Effective Date, Dow shall retain ownership of the property and shall comply with the terms of this Project Description until a third party is identified and approved as a transferee or lessee.

The property shall be used for (1) the construction of an Environmental Education Center that will be available for the land-based BaySail Environmental Education Programs; (2) associated public parking; and (3) access for mooring BaySail ships. Dow shall, within 90 days of the Effective Date of the Consent Decree, protect the property in perpetuity through recording of a conservation easement in a form substantially similar to Appendix H to the Consent Decree, or a similar recordable instrument, that is approved by the EGLE and that specifies use of the property for environmental education and environmental stewardship purposes.

Dow, or a third-party transferee of Dow's interests as approved by EGLE under this Project Description, may seek approval for the third-party



transferee to use the portion of the Environmental Education Center used exclusively by BaySail, by submitting a notice and request for approval to EGLE, to the Project Coordinator identified in this section, at least sixty (60) days prior to such third-party organization taking occupancy conducting business or occupying the Project Location. EGLE's approval shall be based on an evaluation of the proposed use of the property for consistency with the environmental education and environmental stewardship purposes specified in the conservation easement recorded on the property as required in this Project Description.

In the event that the approved third-party transferee specified in this Project description is a state institution of higher education described in sections 4, 5, and 6 of article VIII of the state constitution of 1963, or any 4-year degree-granting institution designated by the state as a state institution of higher education, nothing in this Project description shall require EGLE approval of or oversight over any environmental education programs at the building such third party constructs, with the exception of the approval specified in the preceding paragraph.

## **B. Project Funds for Environmental Education Center**

Dow will provide funds for this Project in one of two ways, either:

a) Within 180 days after the Effective Date of the Consent Decree, Dow shall deposit a one-time payment of \$500,000 into an interest-bearing account that shall be used for any lease and utilities payments made by BaySail at the Project location related to the Environmental Education Center (or, in the event that Dow leases the Property to a third party that sub-leases to BaySail, for sub-lease payments).

or

b) Unless another arrangement is agreed to by EGLE and Dow, within 180 days of the Effective Date, Dow shall provide a one-time payment of \$500,000 to a third party approved by EGLE as specified in subparagraph III.A. of this Project Description for the exclusive purpose of building the Environmental Education Center, including office space for BaySail's exclusive use and space for environmental education and environmental stewardship programming to be shared with the third party transferee. In

return, the third party will forego any lease payments and utility payments from BaySail for a minimum of 20 years after the completion of the building.

### **C. Public Access**

Pursuant to the Consent Decree, Dow will perform work on an adjacent parcel (the Bay City Ecological Restoration Project, described in Appendix F). According to the schedules in Appendix Q of the Consent Decree, Dow shall improve an existing road, or, if necessary, construct a new, two-lane gravel road that provides public access between the Bay City Restoration Project features and the future Environmental Education Center.

### **D. Infrastructure Including Public Utilities**

Within three years after the Effective Date of the Consent Decree, Dow shall ensure at Dow's own cost that space for mooring BaySail ships, public parking, public utility lines for gas, electricity, water, and sewer or septic system are in place to service the Project location.

### **E. Extent of Project**

The funding, access and other obligations in this Appendix are the only requirements for Dow related to the improvement, operation or maintenance of the Environmental Education Center. Operation and maintenance costs for the Environmental Education Center shall be managed based on agreements between Dow and a third party. The State of Michigan will be the Grantee of the protections imposed on the Project Location in the conservation easement required as part of this Project, and will have enforcement rights under that agreement, but the State of Michigan has no other obligations related to the improvement, operation, or maintenance of the Environmental Education Center or associated property.



Figure 1. BaySail and Lighthouse Projects.



## **APPENDIX Q**

### **NRD Restoration Project Schedules**

In accordance with Paragraph 7 of the Consent Decree, Dow shall implement a series of Natural Resource Restoration Projects (“Dow-Implemented Projects”) that are described in more detail in Paragraph 7 and Statements of Work (“SOWs”) that are attached to the Consent Decree as Appendices B-G. As provided in Paragraph 7 of the Consent Decree, Dow shall undertake the Dow-Implemented Projects in accordance with time frames specified in this Appendix Q and schedules approved by the Trustees pursuant to such SOWs.

This Appendix Q establishes general milestones applicable to Dow-Implemented Projects described in Appendices B-G (see Table 1, below, in this Appendix Q), as well as required timeframes for completing each of those general milestones. In addition, this Appendix establishes requirements governing the sequencing and timing of all of the Dow-Implemented Projects as per Part B of this Appendix Q).

As discussed below in Part C of this Appendix Q, following entry of the Consent Decree, Dow will develop and submit to Trustees for approval a Master Schedule. In addition to the generally applicable milestones described in Table 1, the Master Schedule will include a more detailed listing of project-specific steps that will be necessary and/or required to complete each Dow-Implemented Project, consistent with Table 1 and Part B of this Appendix Q, together with a timetable for completing each of the identified steps.

Finally, Part D of this Appendix describes the Restoration Progress Meetings that will be used to facilitate efficient project management of the Dow-Implemented Projects.

#### **A. Schedule Governing General Project Milestones Applicable to Dow-Implemented Natural Resource Restoration Projects Described in Appendices B-G**

Each Dow-Implemented Project has required tasks and deliverables defined in a project-specific SOW (Appendices B-G). The objective of the General Project Milestones Schedule is to provide timeframes for completing milestones that correspond to key project tasks and deliverables that are common to all of the

Dow-Implemented Projects. Dow shall implement each of the Dow-Implemented Projects consistent with the requirements set forth in Table 1, below.

**Table 1. Schedule Governing General Project Milestones for each Dow-Implemented Project Described in Appendices B-G**

<b>Dow Project Task/Deliverable</b>	<b>Timing</b>
Environmental Characterization	Shall be submitted prior to submittal of the Preliminary Design Plan.
Preliminary Design Plan <sup>1,2</sup>	Submittal of Preliminary Design Plans shall be consistent with the requirements set forth in Table 2, in Part B below.
Final Design and Implementation Plan	Shall be submitted within 180 days after Trustee approval of Preliminary Design Plan.
Permits Submitted	90 days after Trustee approval of the Preliminary Design Plan
Commence Construction <sup>3</sup>	Start within 90 days after the Final Design and Implementation Plan is approved, provided, however, that if seasonal conditions make it inappropriate to commence construction within this 90 day period, the timeframe for commencing construction may be delayed until the next construction season.
Construction Completion Report	Shall be submitted within 90 days after the completion of construction activities.
Monitoring and Maintenance Plan	Shall be submitted within 60 days after the Final Design and Implementation Plan is approved.

Dow Project Task/Deliverable	Timing
Monitoring and Maintenance Period	Shall begin immediately after the completion of the construction as documented in the approved Construction Completion Report and shall continue for a duration of 5 years or until all Performance Standards are met, whichever is later, except in the case of the Saginaw River Mouth Boat Access Site Expansion Project which shall have a monitoring period that shall extend for 2 years.
Monitoring and Maintenance Report	Shall be submitted by January 31 of each calendar year within the Monitoring and Maintenance Period.
Project Completion Report	Shall be submitted within 120 days after monitoring and maintenance activities have been completed or all Performance Standards are met, whichever is later.
Routine Restoration Progress Meetings	Bi-monthly (every other month)

<sup>1</sup> The Midland Fish Passage Restoration Project will require a Trustee-approved Conceptual Design Proposal prior to development of the Preliminary Design Plan. The Conceptual Design Proposal shall be submitted in accordance with the Trustee-approved Master Schedule. The Preliminary Design Plan for the Midland Fish Passage Restoration Project shall be submitted within 120 days of the approval of the Conceptual Design Proposal.

<sup>2</sup> The Midland Fish Passage Restoration Project will require a Trustee-approved Fish Use Monitoring Plan prior to submittal of the Conceptual Design Proposal. The Fish Use Monitoring Plan shall be submitted as soon as practicable after the Effective Date so that monitoring under the Fish Use Monitoring Plan can start the first monitoring season after the Effective Date if possible.

<sup>3</sup> For purposes of this Appendix, in the case of projects that include requirements to establish vegetation, planting activities shall be considered part of “construction.”

## B. Project Sequencing Schedule for Dow-Implemented Projects

Dow shall comply with the project sequencing deadlines set forth in Table 2, or such alternate project sequencing deadlines as are agreed to by the Trustees in writing based on consideration of factors that include, but are not limited to, management of project design and implementation resources, seasonal conditions, material supplies, and other logistical unknowns and constraints including project-specific stakeholder coordination issues, project-specific access issues, and project-specific environmental characterization results that significantly alter the timing, scope, or design of the project.

**Table 2. Dow–Implemented Project Sequencing Schedule**

Project	Planned Project Deadline After the Effective Date of the Consent Decree
Eagle Ridge Nature Area Restoration Project	Submittal of Preliminary Design Plan within 6 months
Saginaw River Mouth Boat Access Site Expansion Project	Submittal of Preliminary Design Plan within 10 months
Tittabawassee River Floodplain Restoration and Bike Trail Project	Submittal of Preliminary Design Plan within 15 months
Greater Midland Nature Preserve Restoration Project	Submittal of Preliminary Design Plan within 24 months
Bay City Restoration Project	Submittal of Preliminary Design Plan within 24 months
Midland Fish Passage Restoration Project	Submittal of the Conceptual Design Plan within 30 months
Tittabawassee River Green Corridor Restoration Project	See paragraph 7.b of the Consent Decree and Appendix I for tasks, deliverables, and associated deadlines

Project	Planned Project Deadline After the Effective Date of the Consent Decree
Shiawassee National Wildlife Refuge Expansion Project	See paragraphs 7.c and 10 of the Consent Decree for tasks, deliverables, and associated deadlines

Dow shall complete construction of all Dow-Implemented Projects no later than five years after the Effective Date of the Consent Decree (“Implementation Time Period”); however, if necessary, the five-year Implementation Time Period may be extended for a reasonable time period with the Trustees’ written approval. In addition, to the extent that the Trustees require more than 60 days to review and issue a decision on any deliverable for any Dow-Implemented Project, then additional time (beyond the 60 day period) may be added to the Implementation Time Period for that specific project only. The Parties agree that work that Dow performs during the Monitoring and Maintenance Period as part of any Contingency Measures to meet Performance Standards would not be considered “implementation” for purposes of meeting the requirements of the Implementation Time Period.

### **C. Master Schedule**

Within 30 days after the Effective Date of the Consent Decree, Dow shall submit a detailed Master Schedule to the Trustees for review and approval. The Master Schedule shall identify specific steps that will be undertaken to implement each of the Dow-Implemented Projects, along with dates for each step. The initial Master Schedule shall assume a period of 60 days for review of each deliverable that Dow is required to submit to Trustees for approval.

During the implementation and monitoring of the Dow-Implemented Projects, revisions to the Master Schedule may be required for various reasons, including, without limitation: variations in the timing of Trustee determinations on Dow submittals that require Trustee approval from the assumed 60 day period; resource management issues; seasonal constraints; Force Majeure events; and other conditions that may impact implementation. These revisions to the Master Schedule will allow for flexibility to manage project unknowns and variables and



will allow the implementation team to use adaptive management practices to address and solve issues while keeping the overall schedule.

Since the yearly restoration implementation window (i.e., construction season and/or growing season) is approximately 6 months long, delays at certain times of year may have significant impacts on schedules. If restoration activities cannot be initiated early in the construction and/or growing season, those activities may need to be delayed until the following construction and/or growing season.

. Whenever Dow believes there are grounds for revising the Master Schedule, Dow shall promptly notify Trustees of the proposed revisions it believes are warranted and the basis for the proposed revisions. If the Master Schedule needs to be updated or revised for the reasons specified above, any requested revisions to the Master Schedule shall be proposed in writing for Trustee review and approval. In the event that Dow and the Trustees fail to reach an agreement on any deliverable, the Master Schedule, or revisions to the Master Schedule, Dow may invoke the Dispute Resolution section under the Consent Decree.

#### **D. Restoration Progress Meetings**

Until such time as Dow has fully completed each of the Dow-Implemented Projects, as documented through issuance of Certificates of Project Completion for each of the Dow-Implemented Projects, Dow shall schedule and host periodic Restoration Progress Meetings with the Trustees to review the status of ongoing Dow-Implemented Projects. The initial Restoration Progress Meeting shall be held no later than 120 days after the Effective Date of the Consent Decree. Thereafter, Restoration Progress Meetings shall be scheduled at least bi-monthly (every other month) until such time as Dow has completed the construction phase of all Dow-Implemented Projects, as documented by issuance of Construction Completion Reports for each of the Dow-Implemented Projects. After Dow has completed the construction phase of all Dow-Implemented Projects, Restoration Progress meetings shall be scheduled at least annually. Meeting frequency may be changed as agreed to by the Trustees in writing.

The Restoration Progress Meetings shall discuss the overall Master Schedule and status of activities associated with each ongoing Dow-Implemented Project. The Agenda of the Restoration Progress Meetings shall include at least the following elements, which will be presented by Dow in a written summary and orally during the meeting:



- Activities conducted during the period since the last progress meeting
- Problems encountered during the period since the last progress meeting
- Review and discussion of upcoming draft project deliverables requiring Trustee approval
- Master Schedule status, proposed schedule modifications and contingency measures, if necessary
- Dow-Implemented Project activities planned for the following period
- Status of permitting activities, if appropriate

**APPENDIX R**  
**COMBINED SUMMARY OF STATE OF MICHIGAN WAIVED COSTS**  
**INCURRED PRIOR TO 4/23/2017**

**Remediation and Redevelopment Division**

**Employee Salaries and Wages Expenses**

Period Covered: 3/22/2008-4/22/2017 \$ 785,345.91

**Employee Travel Expenses**

Period Covered: 3/25/2008-9/24/2016 \$ 26,200.59

**Contractual Expenses**

Period Covered: 5/30/2007-12/31/2014 \$ 3,129,103.00

**Miscellaneous Expenses**

Period Covered: 6/18/2008-9/24/2010 \$ 140,048.52  
**\$ 4,080,698.02**

**RRD TOTAL COMBINED EXPENSES FOR THIS SITE:**

**\$ 4,080,698.02**

**DEQ Water Division Expenses**

Period Covered 12/9/2000-2/26/2005 \$ 6,580.34

**DEQ Waste and Hazardous Materials Division Expenses**

Period Covered 3/27/2005-1/24/2009 \$ 714,345.00

**DNR Expenses**

Period Covered: 9/1/2002-4/13/2017 \$ 85,254.14

**Agriculture Department Expenses**

Period Covered: 6/1/2002-5/31/2004 \$ 5,453.18

**Attorney General Expenses**

Period Covered: 6/1/2004-11/30/2008 \$ 202,682.25

**Subtotal**

**\$ 1,014,314.91**

**Total Combined Expenses for Site**

**\$ 5,095,012.93**

**APPENDIX R**  
**COMBINED SUMMARY OF STATE OF MICHIGAN WAIVED COSTS**  
**INCURRED PRIOR TO 4/23/2017**

**PAYMENTS**

<b>Project# 456451-00 - DOW NRD Cooperative Assessment (Settlement ID RRD2222)</b>						
<b>Doc</b>	<b>Eff Date</b>	<b>Doc Desc</b>	<b>Index</b>	<b>PCA</b>	<b>Appn</b>	<b>AY</b>
97809617	4/29/2008		45000	99136	8800	2008
GS003972	7/14/2008	TO CORRECT CODING	45000	99136	8800	2008
97809260	10/30/2007		45000	99136	8800	2008
97809968	10/23/2008		45000	99136	8800	2009
97800584	9/23/2009		45000	99136	8800	2009
97800908	3/17/2010		45000	99136	8800	2010
97801314	10/22/2010	SETL-RRD2222	45000	99136	8800	2011
97801697	6/29/2011		45000	30713	4561	2011
97801853	11/1/2011		45000	99136	8800	2012
97802078	3/21/2012		45000	99136	8800	2012
97802382	10/18/2012		45000	99136	8800	2013
GQE50325	8/2/2013	RRD 2222 Settlement	45000	99136	8800	2013
DNR Payments						
						\$29,031.00
						<b>\$1,479,581.94</b>

*\*during the period of department transition, payments were not seperated from DNR*

<b>Total Combined Expenses</b>	<b>\$5,095,012.93</b>
<b>Less Payments</b>	<b>\$1,479,581.94</b>
<b>Balance</b>	<b>\$3,615,430.99</b>

## **APPENDIX S**

### **Nature Trail Guidelines**

#### **I. Purpose**

The purpose of this Appendix is to describe the requirements for nature trails that will be constructed as required in certain of the Statements of Work (“SOWs”) in Appendices B – G.

#### **II. Nature Trail Standards**

The nature trails will be constructed according to standards developed by the National Park Service (NPS) for the North Country National Scenic Trail (NCT) ([https://www.nps.gov/noco/learn/management/upload/NCT\\_CH4.pdf](https://www.nps.gov/noco/learn/management/upload/NCT_CH4.pdf)).

Standards vary based on recreational setting, site conditions, and trail objectives for various trail segments of the NCT. For purposes of the SOWs, the trail standards that shall be used are those for the hiking segments in recreational settings characterized as “Rural and Roaded Natural” or “Semiprimitive” as defined within NPS Trail Construction Design Standards (Figure 1). Generalizing across these two categories results in the following standards to be used for nature trails to be constructed pursuant to the SOWs:

- Tread Width – 18 to 24 inches
- Clearing Width – at least 12 inches (i.e. 12” cleared on each side of the tread)
- Clearing Height – at least 8 feet
- Maximum Sustained Slope – 10-15 percent
- Maximum Intermittent Slope – 20-30 percent/100 Feet
- Maximum Cross Slope – 5 to 8 percent
- Passing Intervals – 600 to 1200 feet
- Resting Area Intervals – 1200 to 2600 Feet
- Surface – Natural and native soils

### III. Example

Illustrative example of nature trail to be constructed in accordance with this Appendix S: photo taken at the Glacial Hills Pathway and Nature Area ([www.gtrlc.org](http://www.gtrlc.org)) .

