ISID - Environmental (Billing Rate) Indefinite-Scope, Indefinite-Delivery Contract R 02/28/19



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

This contract authorizes the professional services contractor to provide professional services. (Authority: 1984 PA 431)

CONTRACT FOR PROFESSIONAL ENVIRONMENTAL SERVICES: Indefinite Scope-Indefinite Delivery

THIS CONTRACT, authorized this 17th day of February the year two-thousand and twenty-three (2023), by the Director, Department of Technology, Management and Budget, BETWEEN the STATE OF MICHIGAN acting through the STATE FACILITIES ADMINISTRATION, DESIGN AND CONSTRUCTION DIVISION of the DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET, 3111 W. St. Joseph Street, Lansing, Michigan, 48917, hereinafter called the Department, and

Weston Solutions of Michigan, Inc. (Weston) 2501 Jolly Rd., Suite 100 Okemos, MI 48864

the Prime Professional Services Contractor, hereinafter called the

Professional. WHEREAS the Department proposes securing

professional services for:

Indefinite-Scope, Indefinite-Delivery Contract No. 00951

Index No. (To Be Established) Contract Order No. Y (To Be Assigned) File No. (To Be Assigned)

Department of Technology, Management and Budget, State Facilities Administration, Design and Construction Division, Professional Environmental Services Indefinite-Scope, Indefinite-Delivery Contract (ISID) for Minor Projects –

2023 Environmental ISID Services

Various State Departments and Facilities Various Site Locations, Michigan

NOW THEREFORE, the Department and the Professional in consideration of the covenants of this Contract agree as follows:

- The Professional shall provide primary environmental investigation/assessment/design/construction oversight services for the assigned projects to the extent authorized by the Department of Technology, Management and Budget State Facilities Administration (SFA), Design and Construction Division (DCD) [The Department] and be solely responsible for such professional services. The Professional's services shall be performed in strict accordance with the assigned Project scope of work.
- II. If authorized, the Professional shall provide environmental services for the regions and project types identified below.

		F	Reg	ions	5		
Western UP	Eastern UP	Northern LP	Saginaw Bay	Western LP	Central LP	Southwestern LP	Southeastern LP
x	х	х	х	х	х	х	х

		Ρ	rojec	t Ty	vpes a	and	Ser	vices	s Offe	ered			
Asbestos/Lead/Mold/Biohazard/Free Product Regulated Waste Survey/Abatement	Brownfield Development	Ecological Risk Assessment / Forestry and Land Management / Wetland Mitigation / Streams and Lakes Restoration	Environmental Investigation / Characterization / Pilot Tests / Feasibility Study	Environmental Roto Sonic Drilling / Well Abandonment	Ground Penetrating Radar (GPR) / Laser-Induced Fluorescence (LIF) Field Screening	Landfill Maintenance / Monitoring	Nuclear Waste Management / Disposal / Remediation	Per-& Polyfluoroalkyl Substances (PFAS) Sampling / Mitigation / Remediation	Phase I / Phase II / Baseline Environmental Assessments	Remediation Systems Design / Construction Oversight / O & M / Decommissioning	Specialty Sub-Surface / Utility Inspection / Sewer Camera / Cleaning	Underground / Aboveground Storage Tank (UST / AST) Removal / Demolition/ Soil Excavation / Closure	Vapor Intrusion Assessments / Risk Mitigation / Design / Installation / O & M Services
X	X	Х	X	X	X			Х	Х	X		X	X

NOTE: Blackened box(es) indicate a service that the committee did not select for your firm.

III. The State of Michigan shall compensate the Professional for providing their professional services for the Project in accordance with the conditions of this Professional Services Contract. IN WITNESS, WHEREOF, each of the parties has caused this Professional Services Contract to be executed by its duly authorized representatives on the dates shown beside their respective signatures, with the Contract to be effective upon the date on which the Professional received a copy executed by the authorized State of Michigan representative(s) by regular, registered, or certified mail or by delivery in person.

FOR THE PROFESSIONAL:

Weston Solutions, Inc.	CV0007304			
Firm Name	SIGMA Vendor ID Number			
Joseph Ruiz	02/25/2023			
Signature	Date			
Program Manager				
Title				
FOR THE STATE OF MICHIGAN:				
Van dan	March 20, 2023			
Director, DTMB SFA Design and Construction	Date			

Director, DTMB | SFA | Design and Construction

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WHEREAS this Professional Services Contract constitutes the entire agreement as to the Project between the parties, any Contract Modification of this Contract and the Department's approved and attached Project/Program Statement scope of work requirements must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the State may require. No Contract Modification may be entered into to compensate the Professional for correcting, or for responding to Professional design claims or litigation for. the firm's final Contract Documents/architectural and engineering design errors, omissions, or neglect on the part of the Professional.

ARTICLE I PROFESSIONAL SERVICES SCOPE OF WORK

Provide professional environmental services, technical staff, and support personnel for ISID minor projects on an as-needed basis at various State/Client Agencies within the various site location areas as defined by the State of Michigan.

This Contract is for professional environmental investigation and/or design services for an unspecified number of ISID projects ("Assignment"). The scope of work for each assigned project will be defined at the time the project is awarded by the State to the Professional firm. The professional environmental services required for each of these assigned projects requested by the Department may include any or all of the Tasks included in the Phase 100 – Study through the Phase 900 – Operation and Maintenance Management.

The Professional firm's environmental services shall be performed in strict accordance with this Professional Services Contract and be in compliance with the Department's approved and attached Appendix I– Project/Program Statement.

This Contract does not warrant or imply to the Professional environmental firm, entitlement to perform any specific percentage (%) amount of environmental work during the life of this Contract.

This Contract will remain in effect for **three (3) years** from the date of this Contract award but may be unilaterally terminated by the State of Michigan at any time, for cause or its convenience, by written notification of the State, to the Professional. Furthermore, this Contract may be extended for **one (1) additional year**, at the sole option and discretion of the State upon the Department providing written notice to the Professional prior to the expiration of the original Contract time period. Any such time extension shall be subject to the terms and conditions of this Contract, including, but not limited to, the existing hourly billing rates included in this Contract for the Professional, their Consultant, and their employees or agents.

Please note that the Professional Services Contract ISID Contract No., as noted on page 1, must be provided on all Project correspondence and documents. Also, services are not to be provided or expenses incurred until individual ISID Projects are assigned to this Contract (see the Article II – Compensation and the Appendix 1 – Project/Program Statement).

Upon award of this Contract and each subsequent assignment, the Professional understands and agrees that time is of the essence. Failure to adhere to timely completion will be grounds for the Department, at its sole discretion, to terminate or limit future work under this Contract.

The Professional shall provide all professional services, technical staff, and support personnel necessary to complete the Project as described in its Project/Program Statement, in the best interest of the State, and within the Professional's fee(s) herein authorized by the State. Assigned project services shall comprise, without exception, every professional discipline and expertise necessary to meet all the requirements as described in the Project/Program Statement and in accordance with the accepted industry standards for professional practice and services. The Professional's services include attendance at all Project related meetings and conferences. Professional services for the assigned projects under this contract shall be provided in the Phase/Task sequence shown below and shall be rendered in accordance with the Professional's proposed and approved Project Study, Design, and Proposed Construction Schedule. The Professional's study, design, and proposed construction schedule shall be detailed, undated, and time sequence related for all Phase/Task services appropriate for the Project. The Professional shall field-check and verify the accuracy of all study/drawing and any data furnished by the Department, the State/Client Agency or any other Project related source. The Professional shall not employ or consult with any firms in completing the Professional's obligations herein who it anticipates will be a construction Bidder for the Project or any part thereof, unless specifically authorized, in writing, by the Department.

The Professional acknowledges that the Department is the first interpreter of the Professional's performance under this Contract.

The Professional acknowledges by signing this Professional Services Contract having a clear understanding of the requested professional environmental services required by the Department, and further agrees that the terms and conditions of this Professional Services Contract provide adequate professional fee(s) for the Professional to provide the requested Project scope of work requirements for each assigned project. No increase in compensation to the Professional will be allowed unless there is a material change made to the scope of work of the Assignment/Program Statement and the change is accepted and approved, in writing, by the State. Professional services shall not be performed, and no Project expenses shall be incurred by the Professional prior to the issuance of a written and signed Professional Services Contract and a Contract Order authorizing the Professional to start the Project work. Compensation for Department directed changes to the Project will be provided to the Professional by a Contract Modification and/or Contract Change Order signed by the Department and the Professional. The preparation of Bulletins and Contract Change Orders resulting from changes in the Project scope of work or previously unknown on-site field conditions will be compensated to the Professional, as approved by the Project Director/Agency Project Manager, on an hourly billing rate basis in accordance with this article. This compensation shall not exceed seven and half percent (7.5%) of the Construction Contractor's quotation for the Bulletin or Contract Change Order or an amount mutually agreed upon by the Professional and the Project Director/Agency Project Manager.

The Professional shall immediately inform the Department whenever it is indicated that the Professional's authorized not-to-exceed Budget for any of the assigned Projects may be exceeded. The Professional shall make recommendations to the Department for revisions to be implemented in order to not exceed the original authorized Budget. Any revision to the Project must be accepted and approved by the Department in writing.

The professional services may also include participation in legislative presentations as described in the "Major Project Design Manual for Professional Services Contractors and State/Client Agencies" and as the legislature or the Department may prescribe.

No substitution of any "Key Personnel/Employee" essential for the successful completion of the Project and identified in the Professional's Organizational Chart will be allowed by the Professional for this Contract without the prior written consent from the Project Director/Agency Project Manager. Before any "Key Personnel/Employee" substitution takes place, the Professional shall submit a written request to the Project Director/Agency Project Manager, and this substitution request shall include the following information: (1) A request in writing for a No Cost Contract Modification; (2) Detailed written justification for this substitution; (3) The Professional's qualifications of any proposed "Key Principal Personnel/Employee" replacement; and (4) A written statement from the Professional assuring the Department that the Project scope of work will not be adversely affected by this substitution. This request to modify their Professional Services Contract must be accepted and approved in writing by the Project Director/Agency Project Manager and the Director of the Department.

The Department will designate individuals to serve as the Project Director and Agency Project Manager for the Project scope of work who shall be fully acquainted with the Project/Program Statement and have the authority to render Project decisions and furnish information promptly. Except in connection with issues under the Article XII - Contract Claims and Disputes text, the Project Director/Agency Project Manager will exercise general management and administration for the Professional's services in so far as they affect the interest of the State. The Professional shall indemnify, defend, and hold harmless the State against exposure to claims arising from delays, negligence, or delinquencies by the Professional for the professional services of this Contract.

During the Construction Administration Services Phase of the Project, the Professional is required to complete and submit, the on-site inspection record form, "DTMB-0452, The Professional's Inspection Record," for all on-site inspection visits to the Project site. The Inspection Record shall be completed and signed by the Professional and submitted monthly, with the original document sent to the Project Director/Agency Project Manager and copies sent to the Construction Contractor. The Inspection Record shall accompany the Professional's monthly payment request.

The "DTMB-0460, Project Procedures" contains Department forms which shall be used during the Construction Administration Phase of this Contract. All professional services will be consistent with the Department's current "Major Project Design Manual for Professional Services Contractors and State/Client Agencies" unless otherwise approved in writing by the Department.

The professional services required for each Phase of this Contract shall be performed by the Prime Professional and their Consultants in accordance with service descriptions in this article. The following service descriptions outlined in this Contract represent the Department's standard of care for the Professional's responsibilities for providing the professional services of this Contract; but by inclusion, or omission, the descriptions do not limit or exclude any regular or normal professional services necessary to accomplish the Project in accordance with the approved Project Budget and the industries accepted practice and standards for professional services. All of the services outlined in this Contract may not be applicable to the Project/Program Statement. The Professional shall determine and coordinate the interface of the services required for the Project and is responsible for identifying any additional services necessary to successfully complete the Project.

The professional shall execute the following PHASES upon written authorization from the Project Director.

PHASE 100 - ENVIRONMENTAL INVESTIGATION/STUDY SERVICES

Provide complete and comprehensive Environmental Investigation/Study Deliverables to meet the requirements of the Project/Program Statement. Upon completion of all field investigation, assessment, research, review and/or oversight, prepare a complete report with an executive summary, and in such detail, as the Project Director may prescribe. The services under this phase may include but not be limited to coordination, environmental assessments, drilling, field sampling/oversight, data/document review/management, feasibility study, and reporting as described in the Project/Program Statement. Project reports must be in accordance with Department/Client/Agency requirements and as outlined in the Project/Program Statement but shall include, as a minimum and as appropriate, the following items: (1) Problem; (2) Conclusion; (3) Recommendations; and (4) Discussion, details, and documentation.

PHASE 300-SCHEMATIC DESIGN

Prepare Schematic Design Deliverables consistent with the Project/Program Statement. The deliverables shall consist of conceptual remediation system, drawings, outline specifications, a Schematic Construction Cost Estimate, other related documentation, and shall diagrammatically depict the areas, scales, and relationships of the functions. The services under this phase may include but not be limited to coordination, construction codes and design reviews, civil/site staging investigation, schematic design and utilities review, drafting, and project cost/proposed construction schedule, as required by the Department/Client/Agency and as outlined in the Project/Program Statement. Acceptance of the Schematic Design by the Department/Client/Agency does not limit subsequent inclusion of minor, but essential, schematic or design details whose necessity and arrangement may best become apparent during subsequent Phases of the Project design. Revise design as necessary and obtain approval from the Department/Client/Agency.

PHASE 400-DESIGN DEVELOPMENT

Prepare Design Development Deliverables based on the Owner-accepted Schematic Design to depict the intent of the designed remediation system(s). The deliverables shall consist of draft drawings and specifications. Construction Cost Estimates and other related documentation to clearly establish the complete basis for further detail into final design drawings/specifications. The deliverables shall further define the Project by fixing and describing the Project size, character, site relationships, and other appropriate elements including the environmental, civil, structural, architectural, mechanical, electrical, and safety systems. The services under this phase may include but not be limited to coordination, draft drawings/specifications, site specific staging investigation, structural calculations and preliminary environmental/architectural/engineering design drawings/specifications, development/reviews of as required by the Department/Client/Agency and as outlined in the Project/Program Statement.

PHASE 500-CONSTRUCTION DOCUMENTS AND BIDDING DOCUMENTS

Prepare Construction Documents that revise, refine, amplify, and depict, in detail, the Project. The documents shall set forth, in detail, guality levels of and requirements for the construction, and shall consist of final drawings/specifications that comply with applicable regulatory and construction code requirements, enacted at the time of completion of the one hundred percent (100%) Construction Documents. Prepare Bidding Documents in Phases/Bid packages appropriate to the Project requirements and funding. Incorporate the current edition of DTMB "MICHSPEC", "DCSPEC" or "50KSPEC", as adopted and modified by the State of Michigan. The Construction Documents shall contain all information necessary to bid and construct the Project. The services under this phase may include but not be limited to coordination, final drawings/specifications and bidding documents, civil/site staging design, final structural calculations, final environmental/architectural/engineering design development/reviews of drawings/specifications, construction testing program, hazardous materials, health and safety risks, final design correction procedures, design and construction budget, construction codes/permits and construction schedule, as required by the Department/Client/Agency and as outlined in the Project/Program Statement.

PHASE 600 - CONSTRUCTION ADMINISTRATION - OFFICE SERVICES

Provide all required construction oversight administration and timely professional review and administrative services, as the circumstances of the Construction may require, allowing the successful review/implementation of the Construction Documents into a completed remedial actions/abatement measures and/or for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, review and approval of shop drawings and submittals, reporting of construction progress, construction quality testing, construction contractor performance review, punch list procedures, claims, establishing close-out procedures and developing/review of as-built documents, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

PHASE 700 - CONSTRUCTION ADMINISTRATION - FIELD SERVICES

Provide all required Construction Oversight and Field Services, including timely inspection and professional services, as the circumstances of the Construction may require, allowing the successful review/implementation of the Construction Documents into a completed remedial action/abatement measures and/or for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, field inspections, progress meetings and final project inspection, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

PHASE 900 - OPERATION AND MAINTENANCE SERVICES - REMEDIATION FACILITY

Provide all required Operation and Maintenance (O&M) Services and perform, in a safe and secure environment, all functions, including timely inspection, sampling and professional services, necessary to maintain uninterrupted, effective and efficient facility/system components for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, general system operation/inspections, routine system/building/ground maintenance, sampling, spare replacement consumable supplies, parts, utilities, waste materials removal/treatment/disposal, non-routine emergency services, progress meetings and reporting, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

ARTICLE II COMPENSATION

In consideration of the performance of this Contract, the Department agrees to pay the Professional, as compensation for professional services, an hourly billing rate for each employee providing a direct service to this Project, on a not-to-exceed basis as specified herein, subject to subsequent modifications mutually agreeable to the parties hereto; provided, however, the Professional may not incur costs, or bill the Department, for professional services in excess of the estimates established for this Project without the prior written agreement of the Department. The attached proposal prepared by the Professional in response to the Request for Proposal, by the Owner, may describe methodology, services, schedule, and other aspects of the work to be performed under the Contract but does not supersede the Contract.

Compensation to the Professional shall be on an hourly billing rate basis for professional services rendered by salaried and non-salaried professional, technical, and technical support employees, except for any authorized reimbursable expenses provided for in this Contract. Total compensation for any Phase shall not exceed the amount authorized for that Phase, unless authorized in writing by the Department's approved Contract Change Order. Professional services shall not be performed, and no Project expense shall be incurred by the Professional firm prior to the issuance of a written and signed Professional Services Contract and a DTMB Form 0402 - Contract Order by the Department to the Professional, authorizing the Professional to start the Project.

Compensation to the Professional for services and authorized technical and technical support employees performing a direct service for this Project shall be determined using the Professional firm's billing rates. The Professional firm's hourly billing rate shall be the actual amount paid for the employee services on the Project including fringe benefits, vacations, sick leave, other indirect costs, and profit. The Professional firm's hourly billing rates shall not change during the life of this Contract without written approval by the Department. See attached Appendix, **Overhead Items Allowed for the Professional Services Contractor Firm's Hourly Billing Rate Calculation**, for the guide to overhead items allowed for the professional services contractor firm's hourly billing rate calculation. Reimbursement for the Project/Program Statement scope of work requirements will be provided only for Department approved items authorized for reimbursement compensation in this Contract. The State will not reimburse the Professional for downtime, or for personnel involved in downtime due to mechanical problems or failure of Professional's or Subcontractor equipment.

The preparation of Bulletins and Contract Change Orders resulting from changes to the Project scope of work or previously unknown on-site field conditions will be compensated to the Professional, as approved by the Department on an hourly billing rate basis in accordance with this article. This compensation shall not exceed seven and one- half percent (7.5%) of the Construction Contractor's quotation for the Bulletin or Contract Change Order or an amount mutually agreed upon by the Professional and the Project Director/Agency Project Manager.

The Professional shall provide, but no additional monetary compensation shall be allowed for the services necessary to respond to and resolve all claims arising wholly or in part from the Professional's errors and/or omissions or other aspects of the Project's design or the Professional firm's performance which is inconsistent with the Professional or Construction Contract.

- 2.1 PREMIUM TIME/OVERTIME: This Contract anticipates that no premium or overtime is required to achieve the Project's scope of work. No compensation will be allowed to the Professional for any premium or overtime cost incurred to achieve the Project schedule of this Contract, unless directed in writing by the Project Director/Agency Project Manager and approved by the Department.
- 2.2 EMPLOYEE HOURLY BILLING RATES: Hourly billing rates will include all direct and indirect monetary costs to the State for the Professional's services under this Contract other than the authorized and approved reimbursements. Hourly billing rates shall be based on the Professional's documented historical operating expenses and adjusted for Project specific costs. In no case shall this documentation period include more than eighteen (18) months prior to the date of award of this Contract.

Lump-sum payments to employees are not allowed under this Contract. Billing rates for employees who perform professional services of a subordinate or of a position classification having a lower classification/pay range shall be accounted and paid for at the lower hourly billing pay rate. The hourly billing rate charge of any employee may be changed by the Professional with a written and Department approved Contract Modification to account for normal personnel pay increases. Hourly billing rates include, but are not limited to: Overhead items such as employee fringe benefits, vacations, sick leave, insurance, taxes, pension funds, retirement plans, meals, lodging, and all Project related travel expenses for Projects <u>less than</u> one-hundred (100) miles in each direction from the Professional's nearest Michigan office, computer costs/operating costs, data entry, and time, telephone, telephone- related services, and all reproduction services (except Contract Bidding Documents/Deliverables).

The hourly billing rate also includes all reproduction costs for design interpretations, study/design clarifications and Bulletins related to design errors or omissions, construction code compliance (precipitating either from design code compliance and plan review, design interpretations, or construction on-site/field inspections), and all similar, or avoidable costs.

All incidental postage, mail, or other shipping or delivery services, acquisition, bad debts, previous business losses, employment fees, depreciation, and operating costs for equipment, including computer design and/or computer drafting systems, and any specialized testing equipment are to be included. The hourly billina rate include, without exception. shall secretarial. computer/typing/word processing, editing, and clerical services utilized in any way for the Project as well as other non-technical and/or employees providing indirect services. The hourly billing rate also includes all profit without regard to its form or distribution.

Items not allowable as part of the Professional's calculated hourly billing rate include but are not limited to: Any costs associated with litigation and settlements for the Professional, other liability suits, out-of-state offices and associated travel, bonuses, profit sharing, premium/overtime costs, public relations, entertainment, business promotion, contributions, and various speculative allowances.

The hourly billing rate for the Professional may not be applied to the work of the Professional's Sub- Consultant's staff. Each Sub-Consultant firm must submit a separate hourly billing rate with proper documentation for Sub-Consultant services provided as part of the Proposal. The hourly billing rate of the respective Consultant firm shall be used for that Consultant firm's personnel only. No mark-up to Consultant firm's charges will be allowed.

2.3 RANGE OF EMPLOYEE HOURLY BILLING RATES: The Professional shall identify the service being provided and include the Professional's or Consultant's employee(s) full names and position classifications for the Project and their current hourly billing rates at the beginning and at the anticipated end of the Project. This hourly billing rate range shall reflect any anticipated pay increases over the life of the Contract. The range of hourly billing rates for any employee position or classification may not be changed without an approved Contract Modification.

2.4 DIRECT COST REIMBURSEMENT ITEMS: The Professional's Consultant services and authorized reimbursable expenses shall be treated as an authorized reimbursable expense item at a direct cost. The Professional shall be responsible for the selection of the supplier of the professional services or materials; the coordination, adequacy, and application of the professional services, whether provided by the Professional's staff or provided by their Consultant, and any Project costs that exceed the budget for each Phase.

Project related travel expenses (mileage, meals, lodging) for Projects <u>more than</u> onehundred (100) miles in one- way from the Professional's nearest office shall be treated as an authorized reimbursable expense at the State of Michigan's current travel rates.

Unless authorized elsewhere in this Contract, direct cost reimbursement items shall be limited to the actual cost of printing and reproduction of project deliverables such as Final Study Reports, Surveys, Bidding Documents, and U. S. Mail regular shipping postage of the project deliverables listed above. In addition, direct cost reimbursement items may include soil borings, site surveys and any required laboratory testing, Design Code Compliance and Plan Review Approval Fees by the licensing agency; reproduction of documents for legislative presentation, artistic productions, mobilization of testing equipment, laboratory costs for testing samples, per-linear-foot cost of soil borings and specialized inspections of the structural, mechanical, electrical, chemical or other essential components of the Project.

Compensation for this Contract shall not exceed the budget per Project Phase identified in the attached Contract Order unless authorized by a Department approved Contract Modification. It shall be the Professional's responsibility to carefully monitor Project costs, activities, and progress and to provide the Project Director/Agency Project Manager timely notification of any justifiable need to increase the authorized budget. The Professional may not proceed with professional services that have not been authorized by the Project Director/Agency Project Manager and shall immediately notify the Project Director/Agency Project Manager if such services have been requested or have become necessary.

Professional/Sub-Consultant staff and hourly billable rates are identified in the attached Professional's proposal.

ARTICLE III PAYMENTS

Payment for the professional services shall be based on the Professional's performance of authorized professional service(s) performed prior to the date of each submitted payment request. Payment requests shall be submitted monthly to the Project Director/Agency Project Manager on a payment request form (DTMB-440). Payment for each monthly submitted payment request shall be made within thirty (30) consecutive calendar days following the Department's approval of the payment request. Payment requests shall include signed certification by the Professional of the actual percentage of work completed as of the date of invoicing for each Phase and summarize the amounts authorized, earned, previously paid, and currently due for each Project Phase. Payment requests shall be supported by itemized records or documentation in such form and detail as the Department may require.

Each of the Professional's Consultant's submitted payment request applications shall include similar information. This includes, but is not limited to:

- Phase Numbers for the professional services provided.
- Professional's personnel and position/classification providing service and hours worked. Current hourly billing rate charges for each individual position/classification.
- Copy of certified on-site visitation log or site visit report showing time on-site.
- Itemized invoices from each of the Professional's Consultant's documenting that firm's professional services charge and the Project work related services provided.
- Authorized reimbursable expense items provided with receipts and invoices.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify the Professional of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to the Professional's continuing obligations, including claims for deficiencies or substandard Contract Activities. The Professional's acceptance of final payment by the State constitutes a waiver of all claims by the Professional against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under the Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at to receive electronic funds transfer payments. If Contractor does not register, the State is not liable for failure to provide payment.

Without prejudice to any other right or remedy if may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract

ARTICLE IV ACCOUNTING

The Professional shall keep current and accurate records of Project costs and expenses, hourly billing rates, authorized reimbursable expense items, and all other Project related accounting documents to support the Professional's monthly application for payment. Project records shall be kept on a generally recognized accounting basis. Such records shall be available to the Department for a period of ten (10) years after the Department's final payment to the Professional. The State of Michigan reserves the right to conduct, or have conducted, an audit and inspection of these Project records at any time during the Project or following its completion.

ARTICLE V

The Professional shall purchase, maintain and require such insurance that will provide protection from claims set forth below which may arise out of or result from the Professional firm's services under this Contract, whether such service is performed by the Professional or performed by any of the Professional firm's Consultant's or by anyone directly or indirectly employed by them, or by anyone for whose acts they may be liable. The following insurance policy limits described below are intended to be the minimum coverage acceptable by the State:

For the purpose of this Section, "State" includes its departments, divisions, agencies, offices, commissions, officers, employees, and agents.

- (a) The Contractor must provide proof that it has obtained the minimum levels of insurance coverage indicated or required by law, whichever is greater. The insurance must protect the State from claims that may arise out of or result from or are alleged to arise out of or result from the Contractor's or a Subcontractor's performance, including any person directly or indirectly employed by the Contractor or a Subcontractor, or any person for whose acts the Contractor or a Subcontractor may be liable.
- (b) The Contractor waives all rights against the State for the recovery of damages that are covered by the insurance policies the Contractor is required to maintain under this Section. The Contractor's failure to obtain and maintain the required insurance will not limit this waiver.
- (c) All insurance coverage provided relative to this Contract is primary and noncontributing to any comparable liability insurance (including self-insurance) carried by the State.
- (d) The State, in its sole discretion, may approve the use of a fully-funded selfinsurance program in place of any specified insurance identified in this Section.
- (e) Unless the State approves, any insurer must have an A.M. Best rating of "A" or better and a financial size of VII or better, or if those ratings are not available, a comparable rating from an insurance rating agency approved by the State. All policies of insurance must be issued by companies that have been approved to do business in the State. To view the latest A.M. Best's Key Ratings Guide and the A.M. Best's Company Reports (which include the A.M. Best's Ratings) visit the A.M. Best Company internet web site at <u>http://www.ambest.com</u>.
- (f) Where specific coverage limits are listed in this Section, they represent the minimum acceptable limits. If the Contractor's policy contains higher limits, the State is entitled to coverage to the extent of the higher limits.

- (g) The Contractor must maintain all required insurance coverage throughout the term of this Contract and any extensions. However, in the case of claims-made Commercial General Liability policies, the Contractor must secure tail coverage for at least three (3) years following the termination of this Contract.
- (h) The minimum limits of coverage specified are not intended and may not be construed; to limit any liability or indemnity of the Contractor to any indemnified party or other persons.
- (i) The Contractor is responsible for the payment of all deductibles.
- (j) If the Contractor fails to pay any premium for a required insurance policy, or if any insurer cancels or significantly reduces any required insurance without the State's approval, the State may, after giving the Contractor at least 30 days' notice, pay the premium or procure similar insurance coverage from another company or companies. The State may deduct any part of the cost from any payment due the Contractor or require the Contractor to pay that cost upon demand.
- (k) In the event the State approves the representation of the State by the insurer's attorney, the attorney may be required to be designated as a Special Assistant Attorney General by the Michigan Attorney General.

The Professional firm's Errors and Omissions coverage shall include coverage for claims resulting from acts of forbearance that cause or exacerbate pollution and claims of bodily injury and property damage in the amount of \$1,000,000 minimum coverage per occurrence, \$3,000,000 annual aggregate. This insurance is required of all professional firms who conduct professional environmental services including, but not limited to, any of the following services:

- (i) Remedial System Design.
- (ii) Remediation Management.
- (iii) Feasibility Development and Implementation.
- (iv) Hydrogeological Evaluation.
- (v) Media Testing and Analysis.
- (vi) Subsurface and Geophysical Investigation.
- (vii) Other related activities as determined by the Department.

Required Limits	Additional Requirements							
Commercial General L	iability Insurance							
Minimum Limits: \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations	Professional must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 20 10 12 19 and CG 20 37 12 19.							
Umbrella or Excess Liability Insurance								
<u>Minimum Limits:</u> \$2,000,000 General Aggregate	Professional must have their policy follow form.							
Automobile Liabi	lity Insurance							
<u>Minimum Limits:</u> \$1,000,000 Per Accident	Professional must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.							
Workers' Compensa	ation Insurance							
Minimum Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.							
<u>Minimum Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.								
Professional Liability (Er Insurar	Professional Liability (Errors and Omissions) Insurance							
<u>Minimum Limits:</u> \$1,000,000 Each Occurrence \$2,000,000 Annual Aggregate <u>Deductible Maximum:</u> \$50,000 Per Loss								

Environmental and Pollution Liability (Errors and Omissions) ***					
<u>Minimum Limits:</u> \$1,000,000 Each Occurrence \$2,000,000 Annual Aggregate	Professional must have their policy: (1) be applicable to the work being performed, including completed operations equal to or exceeding statute of repose; (2) not have exclusions or limitations related to Transportation (upset overturn, spills during loading or unloading, Hazardous Materials Handling, and Non-Owned disposal site liability; and (3) endorsed to add "the State of Michigan, its departments, division, agencies, offices, commissions, officers, employees, and agents" as additional insured.				

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Contractual Liability insurance for claims for damages that may arise from the Professional's assumption of liability on behalf of the State under Article VI concerning indemnification for errors, omissions, or negligent acts in the course of the professional service or other provision within this Contract to the extent that such kinds of contractual liability are insurable in connection with and subject to limits of liability not less than for the general liability insurance and the professional liability insurance and set forth in subsections (c) and (d) above.

Except where the State has approved a subcontract with other insurance provisions, the Professional must require any Consultant/Subcontractor to purchase and maintain the insurance coverage required in this Article. Alternatively, the Contractor may include a Consultant/Subcontractor under the Professional's insurance on the coverage required in that Section. The failure of a Consultant/Subcontractor to comply with insurance requirements does not limit the Professional's liability or responsibility.

Certificate of Insurance documents, acceptable to the State, shall be provided and filed with the Department prior to commencement of the Professional's Project services, unless otherwise approved in writing, and not less than 20 days before the insurance expiration date every year thereafter. Facsimile copies of the Certificate of Insurance will not be accepted. Certificate of Insurance documents must be either submitted hard copy or portable document file (.pdf). The Certificate of Insurance documents must specify on "Description certificate labeled the in the oblong rectangle space of **Operations/Locations/Vehicles/Exclusions** Added By Endorsement/Special Provisions/Special Items" the following items: (1) The ISID Title; (2) The ISID Contract Number; and (3) The State of Michigan must be named as an "Additional Insured on the General Liability and Automobile Insurance Policy." The Certificate of Insurance documents shall contain a provision that the Project insurance coverage afforded under the insurance policies for this Contract will not be modified or canceled without at least thirty (30) consecutive calendar days prior written notice, except for 10 days for non-payment of premium, to the State of Michigan, Department.

This Section is not intended to and is not to be construed in any manner as waiving, restricting, or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Professional to indemnify, defend and hold harmless the State).

The attached, Certificates of Insurance documents required for this Project shall be in force for this Project until the final payment by the State to the Professional is made and shall be written for not less than any limits of liability specified above. The Professional has the responsibility for having their consultant firms comply with these insurance requirements.

ARTICLE VI

- (a) To the extent permitted by law, the Professional shall indemnify, defend and hold harmless the State from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest, and penalties), accruing or resulting to any person, firm or corporation that may be injured or damaged by the Professional in the performance of this Contract and that are attributable to the negligence or tortious acts of the Professional or any of its Subcontractors/Consultants, or by anyone else for whose acts any of them maybe liable.
- (b) Employee Indemnification: In any and all claims against the State of Michigan, its departments, divisions, agencies, boards, sections, commissions, officers, employees and agents, by any employee of the Professional or any of its Subcontractors/Consultants, the indemnification obligation under this Contract shall not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Professional or any of its Subcontractors/Consultants under worker's disability compensation acts, disability benefit acts or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in provisions, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other provisions.
- (c) Patent/Copyright Infringement Indemnification: To the extent permitted by law, the Professional shall indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest, and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Professional or its Subcontractors/Consultants, or the operation of such equipment, software, commodity or service, or the use of reproduction of any documentation provided with such equipment, software, commodity or service infringes any United States patent, copyright, trademark or trade secret of any person or entity, which is enforceable under the laws of the United States.

In addition, should the equipment, software, commodity, or services, or its operation, become or in the State's or Professional's opinion be likely to become the subject of a claim of infringement, the Professional shall at the Professional's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the Professional, (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to Professional, (iii) accept its return by the State with appropriate credits to the State against the Professional's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

Notwithstanding the foregoing, the Professional shall have no obligation to indemnify or defend the State for, or to pay any costs, damages or attorneys' fees related to, any claim based upon (i) equipment developed based on written specifications of the State; or (ii) use of the equipment in a configuration other than implemented or approved in writing by the Professional, including, but not limited to, any modification of the equipment by the State; or (iii) the combination, operation, or use of the equipment with equipment or software not supplied by the Professional under this Contract.

ARTICLE VII OWNERSHIP OF DOCUMENTS

All Project deliverables, including but not limited to: reports, Bidding Documents, Contract Documents, electronic documents and data, and other Project related documents, including the copyrights, prepared and furnished by the Professional shall become the property of the State of Michigan upon completion of the Project, completion and acceptance of the professional's work, or upon termination of the Contract. Project deliverables shall be delivered to the Department upon their request. The Professional shall have no claim for further employment or additional compensation as a result of this Contract requirement. The Professional may retain a copy of all Project documents for their files.

If the Professional is in default or breach of its obligations under this Contract, the State shall have full ownership rights of the Project deliverables, including Bidding Documents and Contract Documents, including all electronic data. If the Professional is in default or this Contract Agreement is terminated, the State shall not use the Contract Documents and deliverables of this Contract for completion of the Project by others without the involvement of other qualified Professionals who shall assume the professional obligations and liability for the Project work not completed by the Professional.

To the fullest extent allowed by law, the State releases the Professional, the Professionals Consultant(s) and the agents and employees of any of them from and against legal claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of the State's use of the Contract Documents other than in accordance with this Contract Agreement.

All Contract deliverables listed may be published or issued for informational purposes without additional compensation to the Professional. The Professional may not use any of the Contract Documents and Contract deliverables for any purpose that may misrepresent the professional services they provided.

The Professional shall retain full rights to the Contract Documents and deliverables and the right to reuse component information contained in them in the normal course of the Professional's professional activities.

The Contract deliverables, Contract Documents, or other documents produced under this Contract may be used by the Department, or others employed by the Department or State of Michigan, for reference in any completion, correction, remodeling, renovation, reconstruction, alteration, modification of or addition to the Project, without monetary compensation to the Professional.

The State of Michigan will not construct additional Projects or buildings based on the work of this Contract without notice to the Professional. Whenever renderings, photographs of renderings, photographs or models, or photographs of the Project are released by the State of Michigan for publicity, proper credit for design shall be given to the Professional, provided the giving of such credit is without cost to the State of Michigan.

ARTICLE VIII TERMINATION

The State may, by written notice to the Professional, terminate this Contract and/or any Assignments, in whole or in part at any time, either for the State's convenience or because of the failure of the Professional to fulfill their Contract obligations. Upon receipt of such notice, the Professional shall:

- a) Immediately discontinue all professional services affected (unless the notice directs otherwise), and
- b) Deliver to the State all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the Professional in performing this Contract, whether completed or in process.
- 8.1 If the termination is for the convenience of the State, an equitable adjustment in the Contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed professional services.
- 8.2 If the termination is due to the failure of the Professional to fulfill their Contract obligations, the State may take over the work and prosecute the same to completion by Contract or otherwise. In such case, the Professional shall be liable to the State for any additional cost occasioned to the State thereby.

- 8.3 If, after notice of termination for failure to fulfill Contract obligations, it is determined that the Professional had not so failed, the termination shall be deemed to have been affected for the convenience of the State. In such event, adjustment in the Contract price shall be made as provided in Section 8.1 of this article.
- 8.4 The rights and remedies of the State provided in this article are in addition to any other rights and remedies provided by law or under this Contract.

ARTICLE IX SUCCESSORS AND ASSIGNS

This Contract shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns; provided, however, that neither of the parties hereto shall assign this Contract without the prior written consent of the other.

ARTICLE X GOVERNING LAWS

This Contract shall be construed in accordance with the current laws of the State of Michigan. Some Assignments to this Contract will be funded wholly or in part by the Federal Government through grant agreements and/or federal programs. The Professional must comply with such funding requirements along with any current applicable federal regulations in performing the tasks described in the Scope of Work, including but not limited to the following current federal regulations. The absence of reference to any law or regulation does not preclude its applicability to this Contract.

- 1. The Comprehensive Environmental Response Compensation and Liability Act of 1980 as amended CERCLA (The Superfund Act);
- 2. Section 306 of the Clean Air Act (42 U.S.C. 1857 (h));
- 3. Section 508 of the Clean Water Act (33 U.S.C. 1368);
- 4. Public Law 98-473 as implemented in the Department of the Interior, Bureau of Indian Affairs;
- 5. Executive Order 11738; Office of Management and Budget Circular A-87, "Cost Principles for State, Local, and Indian Tribal Governments."
- 6. 25 CFR Part 20; Financial Assistance and Social Services Programs
- 7. 40 CFR Part 31; Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
- 8. 40 CFR Part 32 Subpart F; Drug-Free Workplace
- 9. 40 CFR Part 33; Participation by Disadvantaged Business Enterprises in United States Environmental Protection Agency Programs
- 10. 40 CFR Part 35; State and Local Assistance

- 11. 40 CFR Part 35 Subpart 0; Cooperative Agreements and Superfund State Contracts for Superfund Response Actions
- 12. 48 CFR Chapter 1 Part 31 Subpart 31.2; Contracts with Commercial Organizations.

ARTICLE XI NONDISCRIMINATION

In connection with the performance of the Project under this, the Professional agrees as follows:

a) The Professional will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position. The Professional will provide equal employment opportunities to ensure that applicants are employed and that employees are treated during employment, without regard to their race, color, religion, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position.

Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

- b) The Professional will, in all solicitations or advertisements for employees placed by or on behalf of the Professional, state that all qualified applicants will receive equal employment opportunity consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position.
- c) The Professional or their collective bargaining representative will send to each labor union or representative of workers with which is held a collective bargaining agreement or other Contract or understanding, a notice advising the said labor union or workers' representative of the Professional's nondiscrimination commitments under this article.
- d) The Professional will comply with the Elliot-Larsen Civil Rights Act, 1976 PA 453, as amended, MCL 37.2201 et seq; the Michigan Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended, MCL 37.1101 et seq; *Executive Directive 2019-09*; and all published rules, regulations, directives and orders of the Michigan Civil Rights Commission which may be in effect on or before the date of award of this Contract.
- e) The Professional will furnish and file nondiscrimination compliance reports within such time and upon such forms as provided by the Michigan Civil Rights

Commission; said forms may also elicit information as to the practices, policies, program, and employment statistics of the Professional and of each of their Consultant firms. The Professional will permit access to all books, records, and accounts by the Michigan Civil Rights Commission, and/or its agent, for purposes of investigation to ascertain nondiscrimination compliance with this Contract and with rules, regulations, and orders of the Michigan Civil Rights Commission relevant to Article 6, 1976 PA 453, as amended.

f) In the event that the Michigan Civil Rights Commission finds, after a hearing held pursuant to its rules, that the Professional has not complied with the contractual nondiscrimination obligations under this Contract, the Michigan Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the State Administrative Board of the State of Michigan, which the State Administrative Board may order the cancellation of the Contract found to have been violated, and/or declare the Professional ineligible for future Contracts with the State and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the Professional complies with said order of the Michigan Civil Rights Commission.

Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the Professional is declared ineligible to Contract as a contracting party in future Contracts. In any case before the Michigan Civil Rights Commission in which cancellation of an existing Contract is a possibility, the State shall be notified of such possible remedy and shall be given the option by the Michigan Civil Rights Commission to participate in such proceedings.

- g) The Professional shall also comply with the nondiscrimination provisions of 1976 PA 220, as amended, concerning the civil rights of persons with physical or mental disabilities.
- h) The Professional will include, or incorporate by reference, the nondiscrimination provisions of the foregoing paragraphs a) through g) in every subcontract or Contract Order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or Contract Order that said nondiscrimination provisions will be binding upon each of the Professional's Consultant's or seller.

ARTICLE XII CONTRACT CLAIMS AND DISPUTES

In any claim or dispute by the Professional which cannot be resolved by negotiation, the Professional shall submit the claim or dispute for an administrative decision by the Department of Technology, Management and Budget, Director of State Facilities Administration within thirty (30) consecutive calendar days of the end of the disputed negotiations, and any decision of the Director of State Facilities Administration may be appealed to the Michigan Court of Claims within one (1) year of the issuance of the Director's decision.

The Professional agrees that the Department's appeal procedure to the Director of State Facilities Administration is a prerequisite to filing a suit in the Michigan Court of Claims.

ARTICLE XIII DEFINITION OF TERMS

The definition of terms and conditions of this Contract are described and outlined in the following Articles I through XIV and attached appendices. The capitalized defined terms used in this Professional Services Contract shall have the following definitions:

ADDENDA: Written or graphic numbered documents issued by the Department and/or the Professional prior to the execution of the Construction Contract which modify or interpret the Project Bidding Documents, including drawings, and specifications, by additions, deletions, clarifications or corrections. The Addenda shall: (1) Be identified specifically with a standardized format; (2) Be sequentially numbered; (3) Include the name of the Project; (4) Specify the Project Index No., Project File No., the Contract Order No. Y, and a description of the proposed Addenda; and (5) Specify the date of Addenda issuance. As such, the Addenda are intended to become part of the Project Contract Documents when the Construction Contract is executed by the Professional's recommended lowest responsive, responsible qualified Construction Contractor.

An Addendum issued after the competitive construction Bid opening to those construction Bidders who actually submitted a Bid, for the purpose of rebidding the Project work without re-advertising, is referred to as a post-Bid Addendum.

AGENCY PROJECT MANAGER: The assigned staff of the Department or the State/client Agency authorized by the State to represent and act on behalf of the Project Director on a given Project and to thereby provide direction and assistance to the Construction Contractor. The Agency Project Manager may designate in writing a person to act on behalf of the Agency Project Manager when they are unable to perform their required duties or is away from the office. In such cases, the Agency Project Manager must notify the Construction Contractor and the Project Director.

AGENCY FIELD INSPECTOR: An employee of the State of Michigan under the direction of the State/client Agency who provides the on-site, Inspection of construction Projects for compliance with the study/design intent of the Professional firm's Contract Documents/drawings and specification requirements and the building construction codes. The Agency Field Inspector is the liaison between the Construction Contractor, the Professional, and the Agency Project Manager. The Agency Project Manager, or their Agency Field Inspector, has the authority to require the Professional to respond to and resolve study/design related problems, construction on-site field problems and to attend Project related meetings.

BID: A written offer by a construction Bidder for the Department. Project construction work, as specified, which designates the construction Bidder's base Bid and Bid price for all alternates.

BIDDER: The person acting directly, or through an authorized representative, who submits a competitive construction Bid directly to the Department.

BIDDING DOCUMENTS: The Professional's Project Contract Documents as advertised, and all Addenda issued before the construction Bid opening, and after the construction Bid opening, if the Project construction work is rebid without re-advertising. Bidding Documents shall consist of the Phase 500 - Final Design drawings and specifications, any Addenda issued, special, general, and supplemental conditions of the Construction Contract, and modifications, if any, to standard forms provided by the Department. Such forms consist of the Project advertisement, the instructions to Bidders, the proposal forms, general, supplemental, and any special conditions of the Construction Contract, and the form of agreement between the Department and the Construction Contractor for the Project work requirements.

BID SECURITY: The monetary security serving as guarantee that the Bidder will execute the offered Construction Contract or as liquidated damages in the event of failure or refusal to execute the Construction Contract.

BUDGET: The maximum legislatively authorized Budget amount to be provided by the State of Michigan and available for a specific purpose or combination of purposes to accomplish the Project for this Contract.

BULLETIN: A standard document form (DTMB-0485, Bulletin Authorization No. and the DTMB-0489, Instructions to Construction Contractors for Preparation of Bulletin Cost Quotations for Contract Change Orders) used by the Department to describe a sequentially numbered change in the Project under consideration by the Department and the Professional and to request the Construction Contractor to submit a proposal for the corresponding adjustment in the Contract price and/or Contract time, if any. These standard document forms are a part of the "DTMB-0460, Project Procedures" documents package.

CONSTRUCTION CONTRACT: A separate written Contract agreement between the Construction Contractor and the Department for the construction, alteration, demolition, repair, or rebuilding of a State/Client Agency building or other State property.

CONSTRUCTION CONTRACTOR: Any construction firm under a separate Contract to the Department for construction services.

CONSTRUCTION INSPECTION SERVICES: The Professional's field Inspections of the Project during the construction Phase of this Contract which includes but is not limited to: (1) Documenting the quantity and quality of all Project construction work and verifying that the Project construction work is properly completed; (2) Resolve Project problems that are affecting the Project construction work, certify payment requests, process Bulletins, Contract Change Order recommendations, and requests for information (RFI's) in a timely manner as prescribed in the Department's, "MICHSPEC 2001 Edition of The Owner and Contractor Standard Construction Contract and General Conditions for Construction (Long Form)" or the current Department, DTMB Short Form 401 - Proposal and Contract/Front-End Package for Small Projects for Professional Services Contractors (PSC) with General Conditions for Construction and Instructions to Bidders" as adopted and modified by the State of Michigan and incorporated into the Construction Contract; and the (3) Inspection of Project construction work completed or in progress by the Construction Contractor to determine and verify to the Department's Project

Director/Agency Project Manager and their Department Field Representative that the Project construction work is in compliance with the Professional's design intent and that the Project has been completed by the Construction Contractor in accordance with the Professional's Phase 500 - Contract Documents/drawings and specifications requirements.

The Professional shall provide sufficient Inspections of the Project during the construction Phase to administer the construction Phase field and office services as directly related to the degree of Project complexity, up to and including full-time field Inspections. Construction field Inspections shall occur as the construction field conditions and the Project may require and during the regularly scheduled monthly progress and payment meetings.

The Professional shall use for their construction field Inspection services, only personnel having professional expertise, experience, authority, and compatibility with departmental procedures as the Department may approve. The Professional agrees that such characteristics are essential for the successful completion of the Project. Such individuals shall be replaced for cause where the Department determines and notifies the Professional, in writing, of their unacceptable performance.

CONSULTANT: Any individual, firm, or employee thereof, not a part of the Professional's staff, but employed by the Professional and whose professional service cost is ultimately paid by the State of Michigan, either as a direct cost or authorized reimbursement. This includes the recipient(s) of Contract Orders for material, support, and/or technical services. Also, included are persons and firms whose management and/or direction of services are assigned to the Prime Professional as may be provided elsewhere in this Contract.

CONTRACT CHANGE ORDER: A standard document form (DTMB-0403) issued and signed by the State of Michigan and signed by the Professional which amends the Project Design Professional's Contract Documents for changes in the Project/Program Statement or an adjustment in Contract price and/or Contract time, or both.

CONTRACT DOCUMENTS: The Professional's Phase 100 – Study, Final Report and Phase 500 - Final Design plans/drawings, specifications, Construction Contract, instructions to construction Bidders, proposal, Bidding Documents, agreement, conditions of the Contract, payment bond, performance/labor and material bond, prevailing wages, all Addenda, and attachments as may be necessary to comprise a Construction Contract for the Project. Specifications for this Contract will be prepared for Division 00 through 49, in the current version MasterFormat Outline by the Construction Specifications Institute (C.S.I.), as appropriate for the Project.

CONTRACT MODIFICATION: A form (DTMB-0410) amending the Contract signed by the Department and the Professional. The preparation of Bulletins and Contract Change Orders resulting from changes in the Project/Program Statement or previously unknown on-site field conditions as approved by the Department will be compensated to the Professional by way of the Contract Modification in accordance with the Article II, Compensation text of this Contract. Any Contract Modification of this Professional Services Contract must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the Department may require. No Contract Modification will be approved to compensate the Professional for correcting, or for responding to claims or litigation for, the Professional's Phase 100 – Study, Final Report and Phase 500 - Contract Documents study/design errors, omissions or neglect on the part of the Professional.

CONTRACT ORDER: A form (DTMB-0402) issued and signed by the State of Michigan authorizing a Professional to: (1) Begin to incur Project expenses and proceed with the Project on-site; and (2) Provide professional services for the fee amount designated in the Phases of the Contract Order. Issuance of the DTMB-0402 certifies that: (1) The State will enter into a Professional Services Contract for the professional services described in the various Phases of this Contract; and that (2) The proper three (3) sets of Certificate of Insurance documents have been received and accepted by the State along with the approval and signing of the Professional's Professional Services Contract by the SFA, DCD Director.

DEPARTMENT: The Department of Technology, Management and Budget, Facilities and Business Administration, Design and Construction Division. The Department will represent the State of Michigan in all matters pertaining to this Project. This Professional Services Contract will be administered through the Department on behalf of the State of Michigan and The State/Client Agency.

DESIGN MANUAL: Provides the Professional with information regarding the Department's current "Major Project Design Manual for Professional Services Contractors and State/Client Agencies" review process requirements regarding the uniformity in Contract materials presented to it by the Professional and the State/Client Agency(ies). This manual contains the following noted standards, instructions, and procedures information for: (1) General instructions for planning documents from Phase 100-Study through Phase 500-Final Design; (2) Net and gross area/volume; (3) Project cost format; (4) Outline architectural and engineering specifications; (5) Specifications in documentation Phase; (6) Instructions for proposal; (7) Bidders questionnaire; and the (8) Project job sign.

DIRECTOR: The Director of the Department of Technology, Management and Budget or their authorized State of Michigan representative.

DIRECTOR-SFA: The Director of the Department of Technology, Management and Budget, State Facilities Administration or their authorized State of Michigan representative.

DEPARTMENT FIELD REPRESENTATIVE: An employee of the State under the direction of the Department who provides the Inspection of construction Projects for compliance with the design intent of the Professional's Phase 500 - Contract Documents/ architectural and/or engineering drawings and specification requirements and the building construction codes. The Department Field Representative is the liaison between the Construction Contractor, the Professional, and the Project Director/Agency Project Manager. The Project Director/Agency Project Manager, or their Department Field Representative, has the authority to require the Professional to respond to and resolve study/design related problems, construction field problems and to attend Project

meetings. Unless delegated by specific written notice from the Department, the Department Field Representative has no authority to order any changes in the Project scope of work or authorize any adjustments in Contract price or Contract time.

INSPECTION: The Professional and their Consultant firm's on-site and/or off-site examination of the Project construction work completed or in progress by the Construction Contractor to determine and verify to the Department's, Project Director/Agency Project Manager and their Department Field Representative that the quantity and quality of all Project construction work is in accordance with the design intent of the Professional's Phase 500 - Contract Documents/ drawings and specifications requirements.

KEY PRINCIPAL PERSONNEL/EMPLOYEE: An individual employee of a Professional who is essential for the successful completion of the Project.

NOTICE OF INTENT TO AWARD: A written notice to the Construction Contractor, by the Department accepting the Professional's written recommendation to award the construction Bid to the lowest responsive, responsible qualified construction Bidder. The Notice of Intent to Award letter will also designate the Contract price and itemize the alternates that the Department, at its sole discretion has accepted.

PHASE: A discretely distinguishable step necessary to produce the Project in the course of the Professional providing study, design and construction administration services.

PRIME PROFESSIONAL SERVICES CONTRACTOR/PROFESSIONAL: An individual, firm, partnership, corporation, association, or other legal entity who is legally permitted by law to sign and seal final design construction Contract Documents and licensed under the State of Michigan's professional licensing and regulation provisions of the Occupational Code (State Licensing Law), Act 299 of the Public Acts of 1980, Article 20, as amended, to practice architecture, engineering, environmental engineering, geology, civil, land surveying, or landscape architecture services in the State of Michigan.

The Prime Professional Services Contractor/Professional is also legally permitted by the State of Michigan's regulation provisions of the State Construction Code, Act 230 of the Public Acts of 1972, as amended, and designated in a Construction Contract by the Department to recommend construction progress payments to the Construction Contractor.

PROJECT: Any new construction, existing site, new utilities, existing building renovation, roof repairs and/or removal and replacement, additions, alteration, repair, installation, construction quality control and material testing services, painting, decorating, demolition, conditioning, reconditioning or improvement of public buildings, works, bridges, highways or roads authorized by the Department that requires professional study/design services as part of this Contract.

PROJECT COST: The total Project cost including, but not limited to, site purchase, site survey and investigation, hazardous material abatement, construction, site development, new utilities, telecommunications (voice and data), professional fees, construction quality control and material testing services, testing and balancing services, furnishings, equipment, plan(s)/drawing(s) design code compliance and plan review approval fees and all other costs associated with the Project.

PROJECT DIRECTOR: The professional licensed employee of the Department who is responsible for directing and supervising the Professional's services during the life of this Contract. The Project Director, or their Department Field Representative, has the authority to require the Professional to respond to and resolve study/design related problems, construction field problems and to attend Project related meetings.

PROJECT/PROGRAM STATEMENT: The Project/Program Statement is provided by the Department and defines the scope of the problem, describes why this Project is desirable, and provides a preferred resolution of the problem.

PROJECT TEAM: The Professional, the Project Director/Agency Project Manager, Department Field Representative, a representative of the State/Client Agency, and others as considered appropriate by the Department.

PUNCH LIST: A list of minor construction Project items to be completed or corrected by the Construction Contractor, any one of which do not materially impair the use of the Project work, or the portion of the Project work inspected, for its intended purpose. A Punch List shall be prepared by the Professional upon having made a determination that the Project work, or a portion of the Project construction work inspected, in concert with the Professional, the Construction Contractor, the Department, the Project Director/Agency Project Manager and their Department Field Representative, and any construction manager, is substantially complete and shall be attached to the respective DTMB-0455, Certificate of Substantial Completion form. This standard document form is a part of the "DTMB-0460, Project Procedures" documents package.

SOIL EROSION AND SEDIMENTATION CONTROL: The planning, design and installation of appropriate Best Management Practices (as defined by the most current version of the Department's Soil Erosion and Sedimentation Control Guidebook) designed and engineered specifically to reduce or eliminate the off-site migration of soils via water runoff, wind, vehicle tracking, etc. and comply with the Soil Erosion and Sedimentation Control in the State of Michigan as regulated under the 1994 Public Act 451, as amended – The Natural Resources Environmental Protection Act, Part 91 – Soil Erosion and Sedimentation Control. Soil Erosion and Sedimentation Control associated with this Contract will be monitored and enforced by the Department of Technology, Management and Budget, State Facilities Administration, Soil Erosion and Sedimentation Control Program.

STATE: The State of Michigan in its governmental capacity, including its departments, agencies, boards, commissions, officers, employees, and agents. Non-capitalized references to a state refer to a state other than the State of Michigan.

STATE/CLIENT AGENCY: A Department of the State of Michigan, for whose use the Project will ultimately serve, which requires professional design services.

SUBSTANTIAL COMPLETION: The form (DTMB-0445) stating that the Project work, or a portion of the Project work eligible for separate Substantial Completion, has been completed in accordance with the design intent of the Professional's Contract Documents to the extent that the Department and the State/Client Agency can use or occupy the entire Project work, or the designated portion of the Project work, for the use intended without any outstanding, concurrent work at the Project work site, except as may be required to complete or correct the Project work Punch List items.

SUSTAINABLE DESIGN: The Professional's use of a balance of appropriate materials, products and design methods that reduce the impact to the natural ecosystems and be within the Budget constraints of the Project. Sustainable Design shall be used wherever possible by the Professional in their Project design and an itemized list shall be provided with the Professional's Contract Documents that identifies the processes and products.

TASK: Shall mean the following: (1) A quantifiable component of design related professional study/design Task services required to achieve a Phase of the Project; (2) The most manageable sub-element within a study/design Phase; (3) A unique item of work within a study/design Phase for which primary responsibility can be assigned; and (4) Has a time related duration and a cost that can be estimated within a study, design, and construction Phase.

ARTICLE XIV COMPLETE AGREEMENT / MODIFICATION

This Professional Services Contract constitutes the entire agreement as to the Project between the parties. Any Contract Modification of this Contract and the Project/Program Statement scope of work requirements must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the State may require. No Contract Modification may be entered into to compensate the Professional for correcting, or for responding to claims or litigation for the Professional firm's final design Contract Documents/study/design errors, omissions or neglect on the part of the Professional.

APPENDIX 1

PROJECT/PROGRAM STATEMENT

PROJECT STATEMENT

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET State Facilities Administration Design and Construction Division 3111 West St. Joseph Street Lansing, Michigan 48909

FILE NUMBER	ER PROPOSAL DUE DATE						
Various		Thursday, January 12.2023, at 2:00 p.m., EASTERN					
CLIENT AGENCY							
Department of Environment, Great Lakes, and Energy (EGLE)							
PROJECT NAME AND LOCATION							
2023 Environmental Indefinite Services Indefinite Delivery (ISID)							
PROJECT ADDRESS (if applicable)							
Various							
CLIENT AGENCY CONTACT		TELEPHONE NUMBER					
Bridget Walsh	(517) 420-6379						
DTMB - DCD PROJECT DIRECTOR	TELEPHONE NUMBER						
Indumathy Jayamani	(517) 582-1089						
WALK-THROUGH INSPECTION DATE, TIME, AND LOCATION:							
There is no Pre-Proposal Meeting required.							

MANDATORY (Check box if Mandatory)

LEIN Check (Department of Corrections ONLY) All contractor / vendor representatives attending Preproposal Walk Through Meeting must submit a Vendor / Contractor LEIN Request form <u>five business</u> <u>days prior to the meeting date</u> (See the attached Vendor/Contractor LEIN Request Form). Send the LEIN Request form, filled and signed, by email to Daniel T. Smith at email address: <u>smithD76@michigan.gov</u>. The <u>email "Subject" must include (facility name, project name, date, and time of Pre-Proposal Walk</u> <u>Through Meeting</u>).

PROJECT DESCRIPTION/SERVICES REQUESTED

Provide professional environmental ISID services for a variety of State or Federally funded cleanup sites. The professional will be required to effectively perform tasks at assigned contaminated and/or hazardous waste sites through appropriate screening/investigation and/or remedial/corrective action plan to abate human health or environmental risks or bring an assigned site to an acceptable closure in accordance with the applicable Part 201 or Part 213 of the Michigan Natural Resources and Environmental Protection Act (NREPA) Public Act 451 of 1994, as amended and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and other relevant state and federal statutes and requirements. The Professional is required to refer to State and Federal statutes, procedures, guidelines, and the administration rules when providing the services or entering contracts with sub-consultants / subcontractors to provide the services. The Professional MUST upload their proposal to the State of Michigan Procurement website (SIGMA VSS). The Professional must use the attached appropriate forms to indicate the billing rates and questionnaires. The Professional may check one or more of the project types that they are interested in providing services. The State of Michigan reserves the right not to award the contract(s) or award the contract(s) to one or more firms.

Please NOTE:

- Proposal responses MUST be uploaded to SIGMA VSS. Please enter the total cost for all phases as the bid amount.
- Firms should only submit one (1) attachment (being less than 6 MB) for proposal submission. The attachment is to be the technical and cost proposal combined.
- Do not wait until just before the 2:00 p.m. solicitation deadline to submit your proposal response. SIGMA VSS will not allow a proposal to be submitted after 2:00 p.m., even if a portion of the

proposal response has been uploaded.

- If you experience issues or have questions regarding your electronic submission, you must contact the SIGMA Help Desk for assistance prior to the 2:00 p.m., solicitation deadline. You may contact the SIGMA Help Desk by telephone at 517.284.0540 or toll-free at 888.734.9749. You may also email the SIGMA Help Desk at sigma-procurement-helpdesk@michigan.gov
- Please email the Design and Construction Contract Specialists if you are having SIGMA VSS issues. Please include your SIGMA ticket number and any supporting documentation (i.e., screenshots) to Anne Watros (<u>WatrosA@michigan.gov</u>) and Don Klein (<u>KleinD4@michigan.gov</u>).
- You may be asked by our contract specialists to email your proposal. Emailed submissions will require DCD approval and will be handled on a case-by-case basis.
- Approved emailed submissions MUST be received prior to 2:00 p.m. deadline to be considered responsive and responsible.
- Responses should not be emailed to the Project Director.

NIGP CODES

90629; 91842; 91843; 92535; 92577; 92615; 92623; 92629; 92630; 92645; 92652; 92658; 92678; 92683; 92685; 92690; 92691; 92693; 92696; and 96273

DESIRED SCHEDULE OF WORK

Dependent on the assigned project

ACCEPTING RFP QUESTIONS UNTIL:

Please do not submit online questions via SIGMA VSS. ALL questions should be emailed to Indumathy Jayamani at <u>jayamanii1@michigan.gov</u> address no later than 2:00 p.m., Eastern on December 16, 2022.

REFERENCE STANDARDS: This project will comply with all codes, standards, regulations, and workers' safety rules that are administered by federal agencies (EPA, OSHA, and DOT), state agencies (DHHS, EGLE, DNR, and MIOSHA), and any other local regulations and standards that may apply.

This form is required to be a part of the professional service contract. (Authority: 1984 PA 431)



MINOR STATE CAPITAL OUTLAY PROJECTS

REQUEST FOR PROPOSALS FROM PROFESSIONAL SERVICE CONTRACTORS

(Authority PA 431 of 1984)

For Indefinite Scope Indefinite Delivery Not-to-Exceed Fee, Billable-Rate

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET Request for Proposal for 2023 Indefinite Scope Indefinite Delivery (ISID) for Environmental Services Various Locations, Michigan

PROPOSAL DUE DATE: Thursday, January 12, 2023, 2:00 p.m., Eastern Time

ISSUING OFFICE

Department of Technology, Management & Budget State Facilities Administration Design and Construction Division



Minor State Capital Outlay Projects REQUEST FOR PROPOSALS

Part I - Technical Proposal Part II – Cost Proposal

Professional Services for DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET 2023 Indefinite Scope Indefinite Delivery (ISID) Contract for Environmental Services Various Locations, Michigan

SECTION I GENERAL INFORMATION

I-1 <u>Purpose</u>

This Request for Proposals invites the prospective professional service contractor (Professional) to prepare a gualifications statement and proposal for an Indefinite Scope Indefinite Delivery (ISID) contract. ISID contracts provide the State of Michigan with a simple and streamlined qualifications-based selection process for obtaining professional environmental services for minor, emergency and / or routine investigation and remediation projects. Professionals holding an ISID contract may be contacted by a Department of Technology, Management and Budget (DTMB), State Facilities Administration (SFA), Design and Construction (DCD) Project Director to provide a specific proposal of services and fees for a particular project, which, if found acceptable, will then be assigned to that Professional under their ISID contract. Services requested may include, but not be limited to investigate, evaluate, design and supervise the implementation of abatements / remedies at assigned sites of environmental contamination under Parts 201 and 213 of the Michigan Natural Resources and Environmental Protection Act (NREPA) Public Act 451 of 1994, as amended, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (42 U. S. C. Chapter 103) and other relevant state / federal statutes and requirements. The services to be completed should encompass as a minimum the following phase(s) from DTMB's Sample Standard ISID Contract for Professional Environmental Services.

Projects will be located statewide, within both developed and undeveloped areas. Proposing firms must indicate regions and service areas in which they are willing to provide services, (refer to Questionnaire Articles 2 and 3, Project Types and Service Offered and Project Location, respectively).

The ISID contracts will supplement, but not replace, standard requests for proposals or qualifications as a method for obtaining professional services.
The 2023 Professional Environmental Services ISID contract will be limited to a term of three base years and one option year for assignments. A firm holding an ISID contract may not re-propose until their contract term is exhausted.

Firms with ISID contracts are eligible to participate in MIDeal, a cooperative purchasing program, local units of government, K-12 schools, state colleges and universities, and not for profit hospitals, may, if the firm agrees to participate, contract with an ISID contract holder at the billable rates specified in the ISID contract.

Please Note:

1. FIRMS HOLDING ISID CONTRACTS ARE NOT GUARANTEED ANY ASSIGNMENTS

If DTMB, Design and Construction Division (DCD) determines that a particular project is suited to the ISID contracting method, The DCD Project Director will select an ISID Professional to provide a specific proposal of services and fee for that project. If the proposal is acceptable, the project will be assigned to that Professional under their ISID contract.

DCD reserves the option of requesting such proposals from more than one professional for a particular project.

ISID contracts may include, but not be limited to, the following phase(s) from DTMB's attached Sample Standard ISID Contract for Professional Environmental services.

<u>Phase</u>–

- 100 Study
- 300 Schematic Design
- 400 Preliminary Design
- 500 Final Design
- 600 Construction Administration Office Services
- 700 Construction Administration Field Services
- 900 Operation and Maintenance Management Remediation Facility

The minimum professional qualifications to complete the scope of work for this project are demonstrated experience in the successful planning and execution of similar projects in full accordance with all applicable Local, State, and Federal regulations.

I-2 <u>Project/Program Statement</u>

See attached project/program statement for more detailed information. The Professional, by submitting a Technical (Part I) and Cost (Part II) Proposal to DTMB for evaluation, states that they can and will provide complete services when an individual project is assigned to them.

No increase in compensation to the Professional will be allowed unless there is a material change made to the scope of work of the project/program statement and the change to the project/program statement is approved in writing by DTMB, State Facilities Administration (SFA), Design and Construction Division (DCD).

I-3 Issuing Office

This RFP is issued by the Department of Technology, Management and Budget (DTMB), on behalf of the State of Michigan and its Client Agencies. <u>PROPOSALS SHALL BE RETURNED</u> <u>TO THE ISSUING OFFICE via State of Michigan Procurement website – SIGMA VSS</u>.

The point of contact for all other items in this Request for Proposal is:

Indumathy Jayamani, Project Director Department of Technology, Management and Budget State Facilities Administration, Design and Construction Division Telephone Number: (517) 582-1089 Email: jayamanii1@michigan.gov

I-4 Contract Award

Professionals are requested to submit a two-part proposal, Technical Proposal - Part I, including a Qualifications Questionnaire, and Cost Proposal - Part II. Proposals will be evaluated by an Ad Hoc Advisory Committee based on the Technical Portion - Part I eighty percent (80%) and the Cost Proposal - Part II twenty percent (20%) with the following tentative percentage breakdown:

The Technical Portion will include the following breakdown:

Capacity and Quality	30%
Experience	30%
Personnel Staffing	30%
Business Organization and Contract Understanding	5%
Special Factors	5%

The Cost Portion will include the following breakdown:

Professional Billing Rates	75%
Billing Rate Increase	25%

The professional firm must complete the Professional Questionnaire (Appendix III) and select the Project Types and Project Locations they wish to be considered for. Provide attachments illustrating a minimum of three (3) examples, with references, of successful projects performed in the last five years for each item selected. Please include all the submitted resumes for all Project Types under one (1) appendix.

DTMB will offer a contract to several professional firms recommended by the Ad Hoc Advisory Committee after evaluation of the proposals. Recommendation is expected within forty-five (45) days following the due date of the proposal.

The Professional must include signed PSC Certification forms and the Addendum Acknowledgment form located at the end of this RFP as part of your proposal response.

I-5 Rejection of Proposals

The State of Michigan reserves the right to reject any or all proposals, in whole or in part, received because of this Request for Proposals.

I-6 Incurring Costs

The State of Michigan is not liable for any cost incurred by the Professional prior to acceptance of a proposal and the award and execution of a contract and issuance of the state's contract order.

I-7 Mandatory Pre- Proposal Meeting

NO MANDATORY PRE-PROPOSAL MEETING will be conducted by the Issuing Office for this Request for Proposal.

Questions that arise because of this RFP **MUST BE EMAILED to Indumathy Jayamani** at <u>jayamanii1@michigan.gov</u> to the issuing office no later than **Friday, December 16**, **2022**, at **2:00 p.m.**, Eastern time (ET). If it becomes necessary to amend any part of this RFP, addenda will be posted on the SIGMA VSS website.

I-8 <u>Responsibilities of Professional</u>

The Professional will be required to assume responsibility for all professional services offered in their proposal whether they possess them within their organization or not. Further, the State of Michigan will consider the Professional to be the sole point of contact regarding contractual matters, including payment of all charges resulting from the contract. The prime professional shall possess a license to practice in the State of Michigan pursuant to the Occupational Code (PA 299 of 1980).

I-9 <u>Proposals</u>

The professional must submit a complete, straightforward response to this Request for Proposal. The proposal should describe the professional's ability to meet the requirements of the Request for Proposal.

The proposal must be submitted electronically through the State of Michigan Procurement System (SIGMA VSS). No other distribution of proposals will be made by the Professional. To be considered responsible and responsive, proposals must be uploaded to SIGMA VSS on or before 2:00 p.m., Eastern time (ET), on Thursday, January 12, 2022. The proposal must be signed by an official authorized to bind the professional firm to its provisions. NO FACSIMILES OR E-MAILS OF THE REQUEST FOR PROPOSAL WILL BE ACCEPTED.

The proposal and attachments must be fully uploaded and submitted prior to the proposal deadline. **Please do not wait until the last minute to submit a proposal**, as the SIGMA VSS system **will not** allow a proposal to be submitted after the proposal deadline identified in the solicitation, even if a portion of the proposal has been uploaded.

SIGMA has a maximum size limit on file uploads. When uploading, your attachment(s) the attachment must be 6mb or less.

Also, when entering proposal amount, please enter the total cost amount as \$1.00. Bidder's failure to submit a proposal as required may result in being deemed nonresponsive.

Questions on vendor registration, proposal submissions, or navigation in the SIGMA VSS system can be answered by contacting the SIGMA Help Desk either by telephone at 517.284.0540 or toll free at 888.734.9749 or by email at <u>sigma-procurement-helpdesk@michigan.gov</u>

SECTION II PROPOSAL FORMAT - PART I – TECHNICAL

The proposal must be submitted in the format outlined below. Paginate proposals and ensure that the proposals refer specifically to the project at hand. Proofread proposals for language and mathematical errors. The items shown below are considered in the Ad Hoc Committee proposal review of technical qualifications.

II-I General Information and Project Team

State the full name, address, and SIGMA Vendor Number of the organization and, if applicable, the branch office, consultants or other subordinate elements that will provide or assist in providing the service. Indicate whether you operate as an individual, partnership, or corporation. If a corporation, include the state in which you are incorporated. State whether you are licensed to operate and practice in the State of Michigan.

II-2 Understanding of Project and Tasks

The professional must demonstrate an understanding of the project being considered and the professional services needed to achieve the state's goal. State your understanding of the project requirements and summarize your plan for accomplishing the project. Outline your experience with similar projects, sites, and clients as examples.

Explain how your firm or project team is the best suited to provide the services required for this project and would provide the best value to the State of Michigan for this work.

II-3 Personnel

The professional must be able to staff a project team which has the qualifications and expertise necessary to undertake the project. Include the full names of all personnel by classification that will be employed in the project.

Indicate which of these individuals you consider to be "Key Personnel" for the successful completion of these project types, identify them by position and classification and provide their resumes.

The Professional must identify all Key Personnel that will be assigned to this contract in the table below which includes the following:

- a. Name and title of staff that will be designated as Key Personnel.
- b. Key Personnel years of experience in the current classification.

- c. Key Personnel's roles and responsibilities, as they relate to this RFP, if the Professional is successful in being awarded the Contract. Descriptions of roles should be functional and not just by title.
- d. Identify if each Key Personnel is a direct, or consultant employee.
- e. Identify where each Key Personnel staff member will be physically located (city and state) during the Contract performance.

The Professional must provide detailed, chronological resumes of all proposed Key Personnel, including a description of their work experience relevant to their proposed role as it relates to the RFP. Qualifications will be measured by education and experience with particular emphasis to experience on projects similar to that described in the RFP.

Provide an organization chart outlining authority and communication lines for each professional firm, including Key Personnel, including sub-consultants, client agency, and DTMB.

II-4 Management Summary, Work Plan, and Schedule

This is for reference only and will be required for future assignments, but not required at this time. The professional must outline their work plan and methodology so that it is understood what services and deliverables will be provided, and the quality of the services and deliverables as well. Describe in detailed narrative form your plan for accomplishing the project. Describe clearly and concisely each professional task, event, and deliverable required for project completion. Do not simply reiterate language and tasks from the DTMB Professional Services Contract. Describe your constructability review and quality control plan. Include a detailed time sequenced – related but undated schedule, showing each event, task, and phase in your work plan. Allow time in the assignment schedule for the Owner's review.

II-5 <u>Questionnaire</u>

The professional firm submitting a proposal must complete the Professional Questionnaire (refer to attached fillable form in Microsoft Word format). This questionnaire must be accompanied by a narrative addressing the items above.

NOTE: Any information provided in one location can be referenced as needed in other locations

II-6 <u>References</u>

Provide references, with contact information of previous clients, particularly for similar projects. Outline your experience with similar projects, sites, and contacts.

SECTION III PROPOSAL FORMAT - PART II - COST

III-1 Instructions and Information – Billable Rate

Outline the billable rates for the Professional's staff members who may be assigned to these projects. Specific proposals for individual projects will be obtained at the time of individual project assignment and shall correspond to all phases/tasks of the work plan requested at that time.

If sub-consultants are used for a particular assigned project, their fees shall be provided. **No mark-up** of the sub- consultants' fees or billing rates will be allowed.

Reimbursable Expenses: The State will reimburse the Professional for the actual cost of printing and reproduction of project deliverables such as surveys, reports, and bidding documents (drawings and specifications).

The State will also reimburse for U.S. Mail regular shipping or postage, soil borings, and any required laboratory testing. **No mark-up** of reimbursable expenses will be allowed.

The Professional firm's hourly billing rate shall be the actual amount paid for the employee services on the Project including fringe benefits, vacations, sick leave, other indirect costs, and profit. The Professional firm's hourly billing rates shall not change during the life of this Contract without written approval by the Department. See attached, **Overhead Items Allowed for the Professional Services Contractor Firm's Hourly Billing Rate Calculation**, for the guide to overhead items allowed for the professional services contractor firm's hourly billing rate calculation. Reimbursement for the Project/Program Statement scope of work requirements will be provided only for Department approved items authorized for reimbursement compensation in this Contract. The State will not reimburse the Professional for downtime, or for personnel involved in downtime due to mechanical problems or failure of Professional's or sub-consultant/subcontractor equipment.

Project related travel expenses (mileage, meals, lodging) for Projects <u>more than</u> one hundred (100) miles in one-way from the Professional's nearest office shall be treated as an authorized reimbursable expense at the State of Michigan's current travel rates based on DTMB's Vehicle and Travel Services Travel Rate.

III-2 Identification of Personnel and Estimated Compensation

Provide compensation information for the Professional as well as any Sub-consultants. Note that employees of a separate professional firm or consultant, if proposed, should also be included, and noted.

A. <u>Primary Professional and Sub-consultant(s) – Position, Classification and</u> <u>Employee Billable Rate Information</u>

Using the format of Form II-2-A (attached), identify the service being provided and the Professional's or Sub-consultant's employee(s) names and position classifications.

See Appendix II for guidelines for position classifications. For each employee, list the current hourly billable rate for each year covered under this proposal, Hourly billing rates shall include any anticipated pay increases over the life of the Professional's three-year ISID contract duration. Sub-consultant fees will be included in individually assigned project contracts as not-to-exceed reimbursable amounts.

For individual assigned projects, the proposal will identify the estimated cost for each task.

The total of all phases/tasks shall become the Professional's maximum not-to-exceed cost for the assigned project. Compensation for each phase will be in accordance with the attached sample contract Article II – Compensation.

The following items B, C, and D will be required only at the time a proposal for an individual assigned project is requested.

Forms II-2-B, II-2-C, and II-2-D are for reference only and will be required for future assignments. These forms are not required for this proposal at this time.

A. Fee with Anticipated Hours by Phase – for Individual Assigned Projects

Using the format of Form II-2-B, identify for each phase the estimated hours for each employee and include the billable rate for each employee. Provide totals.

B. <u>Reimbursable Expenses – for Individual Assigned Projects</u>

Using the format of Form II-2-C, identify the phase number, firm name, and description of sub-consulting services, and/or description of all reimbursable direct expenses expressed as a not-to-exceed amount (travel over 100 miles one-way, printing, tests, etc.). Provide totals.

C. <u>Total, Summarized by Phase – for Individual Assigned Projects</u>

Using the format of Form II-2-D, provide a total of the fees and reimbursable expenses, by phase, as outlined in items B and C above. The total of all phases shall become the Professional's maximum not-to-exceed contract for all design services. Compensation for each phase will be in accordance with the "Sample Standard ISID – Environmental Contract for Professional Services."

Use the attached forms to establish your total compensation and trade contract reimbursables.

The following instructions are to be used by the Professional Services Contractor firms to determine the hourly billing rate to use on State of Michigan Projects.

The Professional's Consultant must submit a separate hourly billing rate for the professional consultant services they will provide for State of Michigan Projects. No mark – up of the Professional's Consultant services hourly billing rates will be allowed.

The Department will reimburse the Professional for the actual cost of printing and reproduction of the Contract Bidding Documents, soil borings, surveys and any required laboratory testing services and use of field equipment. No mark-up of these Project costs will be allowed if services are performed in house.

2023 HOURLY BILLING RATE Based on 2022 Expenses

OVERHEAD ITEMS ALLOWED FOR THE PROFESSIONAL SERVICES CONTRACTOR FIRM'S HOURLY BILLING RATE CALCULATION

<u>SALARIES</u> :	EMPLOYEE BENEFITS:	INSURANCE:
Principals (Not Project	Hospitalization	Professional Liability Insurance
Clerical / Secretarial	Employer's Federal Insurance Contributions Act (FICA)Tax	Flight and Commercial Vehicle
Technical (Not Project Related)	Unemployment Insurance	Valuable Papers
Temporary Help Tax Technical Training Recruiting Expenses	Federal Unemployment Disability Worker's Compensation Vacation Holidays Sick Pay Medical Payments Pension Funds Insurance - Life Retirement Plans	Office Liability Office Theft Premises Insurance Key – Personnel Insurance Professional Liability Insurance
TAXES:	SERVICES (PROFESSIONAL)	EQUIPMENT RENTALS:
Franchise Taxes Occupancy Tax Unincorporated Business Tax	Accounting Legal Employment Fees	Computers Typewriter Bookkeeping
Single Business Tax Property Tax Income Tax	Computer Services Bond) Research Project / Contract Bond	Dictating Printing Furniture and Fixtures Instruments

OFFICE FACILITIES: LOSSES:

FINANCIAL:

Rents and Related Expenses Utilities Cleaning and Repair Bad Debts (net)

PRINTING AND

DUPLICATION:

Depreciation

Uncollectible Fee Thefts (not covered by Project / Contract) Forgeries (not covered by Project / Contract)

Specifications (other than

Drawings (other than

Xerox / Reproduction

Contract Bidding documents)

Contract Bidding documents)

SUPPLIES:

Postage

Drafting Room Supplies General Office Supplies Library Maps and Charts Magazine Subscriptions

Photographs

TRAVEL:

All Project – Related Travel*

MISCELLANEOUS:

Professional Organization Dues for Principals and Employees Licensing Fees

SERVICES (NONPROFESSIONAL):

Telephone and Telegram

Messenger Services

II-2-A. Position, Classification and Employee Billing Rate Information

Firm Name

Yearly Hourly Billing Rate Increase

XYZ, Inc. ≈2%

	Ā			
Position/Classification				
	Year 2023	Year 2024	Year 2025	Year 2026
Principal/Project Manager**	\$100.00	\$105.00	\$110.00	\$116.00
Senior Architect	\$100.00	\$105.00	\$110.00	\$116.00
Quality Control/Assurance	\$100.00	\$105.00	\$110.00	\$116.00
Licensed Surveyor**	\$90.00	\$95.00	\$99.00	\$104.00
Project Engineer**	\$90.00	\$95.00	\$99.00	\$104.00
Mechanical Engineer**	\$90.00	\$95.00	\$99.00	\$104.00
Sr. Structural Engineer	\$80.00	\$84.00	\$88.00	\$92.00
Electrical Engineer	\$80.00	\$84.00	\$88.00	\$92.00
Scientist/Surveyor	\$65.00	\$68.00	\$71.00	\$75.00
Staff Engineer	\$65.00	\$68.00	\$71.00	\$75.00
Staff geologist	\$65.00	\$68.00	\$71.00	\$75.00
CAD Operator	\$75.00	\$79.00	\$83.00	\$87.00
Technician	\$65.00	\$68.00	\$71.00	\$75.00
Field Technician	\$50.00	\$53.00	\$56.00	\$59.00
Technical Support	\$35.00	\$37.00	\$39.00	\$41.00

*Billing Rate will be in accordance with the attached guideline page for instructions regarding the "Overhead Items used for Professional Billing Rate Calculation," and the "Sample Standard Contract for Professional Services," Article 5, Compensation Text.

** Key Project Personnel

	TOTAL HOURS	BILLING RATE	TOTAL
POSITION/ CLASSIFICATION			
Principal/Project Manager	30	100.00	3,000.00
Senior Architect	17	100.00	1,700.00
Licensed Surveyor	9	90.00	810.00
Project Engineer	8	90.00	720.00
Mech. Engineer.	8	90.00	720.00
Sr. Structural Engineer	8	80.00	640.00
Electrical Engineer	22	80.00	1,760.00
Draftsperson	40	35.00	1,400.00
Quality Control	2	100.00	200.00
CAD Operator	42	35.00	1,470.00
SUBTOTAL	186		\$10,667.50
		I	

II-2-B. Fee with Anticipated Hours and Billing Rate

II-2C. Authorized Reimbursables -- Sub-consultants, Testing and Expenses

*Firm's Mark-Up Percentage:_____

PHASE	NAME OF FIRM	DESCRIPTION OF SERVICES PROVIDED	TOTAL AMOUNT* (Including mark-up)
Phase 400	Forrest T. Arrea, Landscape Architect, Howell, Michigan	Design of Stormwater Management Rain Garden	500.00
Phase 500	XYZ Productions, Inc. Lansing, Michigan	Printing and reproduction of bidding documents	500.00
Phase 500	Forrest T. Arrea, Landscape Architect, Howell, Michigan	Design of Stormwater Management Rain Garden	500.00
	SUBTOTAL		\$ 1,500.00

III-2D. Total, Summarized by Phase

PHASE	Phase 300	Phase 400	Phase 500	Phase 600	Phase 700	TOTAL
Professional Fee	1, 5 97.50	2,820.00	3,970.00	1,120.00	1,160.00	10,667.50
Reimbursable Expenses	0.00	750.00	1,250.00	0.00	500.00	1,500.00
SUB-TOTAL	1,597.50	3,570.00	5,220.00	1,120.00	1,660.00	
TOTAL CONTRACT						\$ 12,167.50



Certification of a Michigan Based Business

(Information Required Prior to Contract Award for Application of State Preference/Reciprocity Provisions)

To qualify as a Michigan business:

Vendor must have, during the 12 months immediately preceding this bid deadline: or

If the business is newly established, for the period the business has been in existence, it has:

(Check all that apply):

- Filed a Michigan single business tax return showing a portion, or all the income tax base allocated or apportioned to the State of Michigan pursuant to the Michigan Single Business Tax Act, 1975 PA 228, MCL ~208.1 208.145: or
- Filed a Michigan income tax return showing income generated in or attributed to the State of Michigan; or

Withheld Michigan income tax from compensation paid to the bidder's owners and remitted the tax to the Department of Treasury; or

I certify that **I have personal knowledge** of such filing or withholding, that it was more than a nominal filing for the purpose of gaining the status of a Michigan business, and that it indicates a significant business presence in the state, considering the size of the business and the nature of its activities.

I authorize the Michigan Department of Treasury to verify that the business has or has not met the criteria for a Michigan business indicated above and to disclose the verifying information to the procuring agency.

Bidder shall also indicate one of the following:

Bidder qualifies as a Michigan business (provide zip code: _____)

Bidder does not qualify as a Michigan business (provide name of State:).
--	----

Principal place of business is outside the State of Michigan, however
service/commodity provided by a location within the State of Michigan (provide zip
code:)



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET State Facilities Administration Design & Construction Division

Bidder:

Authorized Agent Name (print or type)

Authorized Agent Signature & Date

Fraudulent Certification as a Michigan business is prohibited by MCL 18.1268 § 268. A BUSINESS THAT PURPOSELY OR WILLFULLY SUBMITS A FALSE CERTIFICATION THAT IT IS A MICHIGAN BUSINESS OR FALSELY INDICATES THE STATE IN WHICH IT HAS ITS PRINCIPAL PLACE OF BUSINESS IS GUILTY OF A FELONY, PUNISHABLE BY A FINE OF NOT LESS THAN \$25,000 and subject to debarment under MCL 18.264.



Responsibility Certification

The bidder certifies to the best of its knowledge and belief that, within the past three (3) years, the bidder, an officer of the bidder, or an owner of a 25% or greater interest in the bidder:

- (a) Has not been convicted of a criminal offense incident to the application for or performance of a contract or subcontract with the State of Michigan or any of its agencies, authorities, boards, commissions, or departments.
- (b) Has not had a felony conviction in any state (including the State of Michigan).
- (c) Has not been convicted of a criminal offense which negatively reflects on the bidder's business integrity, including but not limited to, embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property, negligent misrepresentation, price-fixing, bid rigging, or a violation of state or federal anti-trust statutes.
- (d) Has not had a loss or suspension of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.
- (e) Has not been terminated for cause by the Owner.
- (f) Has not failed to pay any federal, state, or local taxes.
- (g) Has not failed to comply with all requirements for foreign corporations.
- (h) Has not been debarred from participation in the bid process pursuant to Section 264 of 1984 PA 431, as amended, MCL 18.1264, or debarred or suspended from consideration for award of contracts by any other State or any federal Agency.
- (i) Has not been convicted of a criminal offense or other violation of other state or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, which in the opinion of DTMB indicates that the bidder is unable to perform responsibly or which reflects a lack of integrity that could negatively impact or reflect upon the State of Michigan, including but not limited to, any of the following offenses under or violations of:
 - i. The Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.
 - ii. A persistent and knowing violation of the Michigan Consumer Protection Act, 1976 PA 331, MCL 445.901 to 445.922.



- iii. 1965 PA 166, MCL 408.551 to 408.558 (law relating to prevailing wages on state projects) and a finding that the bidder failed to pay the wages and/or fringe benefits due within the period required.
- iv. Repeated or flagrant violations of 1978 PA 390 MCL 408.471 to 408.490 (law relating to payment of wages and fringe benefits).
- v. A willful or persistent violation of the Michigan Occupational Health and Safety Act, 1974, PA 154, MCL 408.10001 to 408.1094, including: a criminal conviction, repeated willful violations that are final orders, repeated violations that are final orders, and failure to abate notices that are final orders.
- vi. A violation of federal or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.
- vii. Been found in contempt of court by a Federal Court of Appeals for failure to correct an unfair labor practice as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U. s. C. 158 (1980 PA 278, as amended, MCL 423.321 et seq).
- (j) Is NOT an Iran linked business as defined in MCL 129.312.

I understand that a false statement, misrepresentation, or concealment of material facts on this certification may be grounds for rejection of this proposal or termination of the award and may be grounds for debarment.

Bidder:

Authorized Agent Name (print or type)

Authorized Agent Signature & Date

I am unable to certify to the above statements. My explanation is attached.





ACKNOWLEDGMENT OF ADDENDUMS

PSC acknowledges receipt of Addenda: No. ____ dated: _____,

No. ____ dated: _____ No. ____ dated: _____



2023 Indefinite Scope Indefinite Delivery (ISID) Contract for Professional Environmental Consulting Services Scope of Work

SUMMARY

The State of Michigan is requesting the services of Professional Services Contractor(s) to provide high-quality environmental services to investigate, evaluate, design, and supervise the implementation of abatements/remedies at assigned sites of environmental contamination under Parts 201 and 213 of the Michigan Natural Resources and Environmental Protection Act (NREPA), 1994 P.A. 451, as amended; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and other relevant federal statutes and requirements. The State intends to form a list of firms for several project types. If the professional chooses to be considered for one or more of the project types, the Professionals must be able to perform tasks required by each checked project type to bring the assigned site(s) into compliance with current state and federal environmental requirements.

For the list, preference will be given to firms, in the State of Michigan, generally meeting the following requirements.

- Experience working at Parts 201 and 213 of NREPA 1994 P.A. 451, as amended sites.
- Experience working at CERCLA regulated sites.
- Experience in conducting effective environmental assessment, RI, and FS services.
- Experience in conducting effective vapor intrusion to indoor air assessments and mitigation of vapor intrusion risks to both residential and non-residential structures.
- Experience with the development of human health and ecological risk assessments.
- Experience with database development and management.
- Ability to perform sampling and provide technical review and Quality Assurance/Quality Control (QA/QC) of provided laboratory data.
- Ability to provide comprehensive professional services for the assigned projects.
- Accounting systems with capability to provide detailed cost documentation.

- Consideration will be given to the number and location of the satellite offices, record of past performance, and financial and technical resources.
- Expertise with the selected project type(s).

A number of contaminated sites have been identified in Michigan. This includes sites appearing on the list of contaminated sites authorized by Part 213 and Part 201 of the NREPA 1994 PA 451, as amended. Major steps in resolving the contamination problems at these sites are environmental assessment/investigation and abatement. The State, through review and evaluation of the responses to this RFP, anticipates selecting one or more Professionals to place on a list to provide environmental services on small, urgent, and simple projects. The professional will be required to provide professional environmental services, technical staff, and support personnel for the ISID minor projects on an as- needed basis for various State/Client Agencies within the State of Michigan.

The executed contract will be for professional environmental services for an unspecified number of ISID projects. The scope of work for each assigned project will be defined at the time the project is awarded by the State to the Professional. The professional environmental services required for each of these assigned projects requested by the Department may include any or all the Tasks included in the Phase 100 – Study through the Phase 900 – Operation and Maintenance Management as detailed in the attached SAMPLE contract.

SCOPE OF WORK

The typical environmental services to be performed at these sites under these ISID contracts may include but not be limited to:

- 1. Asbestos / Lead / Mold / Biohazard / Free Product / Regulated Waste Survey / Abatement
- 2. Brownfield Development
- Ecological Risk Assessment / Forestry and Land Management / Wetland Mitigation / Streams and Lakes Restoration
- 4. Environmental Investigation / Characterization / Pilot Tests / Feasibility Study
- 5. Environmental/ Roto Sonic Drilling / Well Abandonment
- 6. Ground Penetrating Radar (GPR) / Laser-Induced Fluorescence (LIF) Field Screening
- 7. Landfill Maintenance / Monitoring
- 8. Nuclear Waste Management / Disposal / Remediation
- 9. Per-& Polyfluoroalkyl Substances (PFAS) Sampling / Mitigation / Remediation
- 10. Phase I / Phase II / Baseline Environmental Assessments
- 11. Remediation Systems Design / Construction Oversight / O&M / Decommissioning
- 12. Specialty Sub-Surface / Utility Inspection / Sewer Camera / Cleaning

13. Underground / Aboveground Storage Tank (UST/AST) Removal / Demolition / Soil Excavation / Closure

14. Vapor Intrusion Assessments / Risk Mitigation / Design / Installation / O&M Services

While performing this work, the consultant may be required to develop site specific project work plans, health, and safety plans (HASPs), quality assurance/quality control plans, bid specifications, and community relations plans.

In addition to these activities, the State may request the Professional to perform the following additional tasks, including but not limited to: assisting the State in acquiring site access; professional assistance for assessing potential uncontrolled hazardous material sites; obtain any permits which are required for the performance of the work; conduct work in a timely manner; ensure security of the site and equipment; comply with the State Environmental Policy Act and local, State and Federal permit requirements prior to conducting remedial actions; provide enforcement support, such as documentation of facts and information about a site and expert testimony during enforcement proceedings; and provide other program development and management assistance for the State departments/agencies. This assistance may include review of plans, drawings, specifications, proposals, technical reports, and other work products associated with a hazardous substance/contaminated site where a release has occurred or is likely to occur; the assessment of environmental and public health risks; record searches; historical reviews; research on technical issues; and personnel training.

ASSIGNMENTS

Services will be requested for an assigned project and will be in accordance with a cost proposal submitted and approved at that time. The professional is expected to have the costs of all required activities needed to complete the assignment.

Individual project assignments will be based on a written Statement of Objectives provided by the State and a proposal from the Professional to perform the scope of work. It is anticipated the assigned work will be completed before the expiration date of the Contract. However, assignments made during the period of the Contract may include work that will continue after the end date of the Contract period. If the State determines there is an imminent endangerment of human health or the environment, design of an emergency abatement system may be assigned under the Contract.

DISPOSAL OF WASTE

Any wastes generated during the performance of work under this Contract must be disposed of in conformance with all applicable state and federal laws, rules, and/or regulations. For all wastes being disposed under this Contract, it is the responsibility of the Professional to ensure compliance with this directive.

The Professional shall sign waste manifests on behalf of the State attesting to the accuracy and completeness of the manifest, when requested, at sites for which they are performing oversight. The State will retain generator status for these wastes. If necessary, the State will provide a letter to the Professional conveying this authority.

The Professional shall properly dispose of any samples they retain during site work upon written permission from the Agency Project Manager. Disposal of samples is not a billable expense but may be included in the Professional's overhead.

ENVIRONMENTAL DRILLING

The Professional shall competitively bid environmental drilling work to at least three (3) drilling contractors for each drilling assignment unless the Professional can demonstrate to the Agency Project Manager's satisfaction that there is only one qualified firm who can adequately perform the work as specified. If the Professional determines the services of a specific drilling firm are required, the Professional must state those reasons in writing to the Agency Project Manager for concurrence. The written request will address cost effectiveness, time constraints, geologic situations, and drilling methodologies.

The format and process used for bidding will be in accordance with industry standards and based upon a method chosen by the Professional that is most advantageous to the State. The frequency of bidding necessary within one project assignment will be decided upon between the Professional and the Agency Project Manager. Copies of all bid documents will be provided to the Agency Project Manager. Costs incurred by the subcontractor for environmental drilling shall be billed to the State as a reimbursement.

<u>Ineligible Costs</u> - The Professional cannot bill the State for the drilling subcontractor's time to develop work plans, prepare bid specifications for work plans, or to attend site safety meetings.

<u>Billing Rates</u> - If a drilling subcontractor provides other technical services such as geophysical testing, then the Professional must submit billing rates, fees, resumes, wages, and salary ranges for that Subcontractor.

<u>Downtime for Equipment and Supplies</u> - The Agency Project Manager has the option to purchase supplies and equipment. If the State purchases equipment for use at a site, the State is responsible for that equipment and may need to compensate the Professional for downtime or demobilization costs if the equipment does not function properly. If the Professional furnishes supplies and equipment that do not function properly and causes downtime, the State will not compensate the Professional for the downtime. Also, the State will not reimburse the Professional for backup supplies and equipment. The State will only reimburse the Professional for supplies and equipment used at the site or that must be available as indicated specifically by the health and safety or work plan.

LABORATORIES

The Professional may be required to obtain samples, prepare them for shipping, ship, and pick up samples or any other activity associated with sample collection and interpretation as determined necessary by the Agency Project Manager.

All laboratory analyses shall be performed by the EGLE lab, unless the Agency Project Manager approves use of a current ISID Environmental Laboratory contract holder, an EPA -CLP lab, or another lab as deemed necessary by the State. If a private lab, other than an ISID State Contract Lab, is to be used to perform the analyses, prior written permission by the Agency Project Manager is required. The private lab must report data in a format consistent with the format used by the State and must include the same level of detail regarding QA/QC documentation and chain of custody records.

EQUIPMENT AND SUPPLY PURCHASES AND RENTAL PROCEDURES

Certain Agency procedures may apply to equipment, supplies, surveys, and other items as specified by the Project Director/Agency Project Manager and will be treated as reimbursements or Other Direct Costs (ODCs). Computers and computer related materials may be included as part of such procedures; however, prior written approval from the Department regarding computers and software must be secured.

If an item will be consumed or would be expected to be rendered unusable during the project assignment, then renting is not a viable alternative and purchasing the item is necessary. Examples of consumption are bags of cement and installed casing. Examples of items expected to be rendered unusable are tyveks and disposable bailers. If the rental price or price of using the Professional's equipment exceeds the purchase price the item shall be purchased.

If renting is an option, the cost shall be based upon the expected time of usage of that service or equipment or supply. The rental charge or charge for the Professional's equipment shall include maintenance, calibration, parts replacement, and service charges for the equipment. A table recording the costs incurred to date to rent equipment, or to use the Professional's equipment, shall be included in each monthly progress report. This table shall also include the purchase price for each piece of equipment. Each item required for the project shall be listed separately.

At the end of the project, the State has the OPTION to accept ownership of a purchased piece of equipment.

If an assignment must be modified to provide for additional scope of work, the cost effectiveness of purchasing, renting, or using the Professional's equipment must be determined for the additional work.

All deposit charges will be paid by the Professional and will not be reimbursed by the State.

HEALTH AND SAFETY PLANS (HASP)

The nature of the work to be performed under this Contract is hazardous.

In addition to Health and Safety Plan requirements noted in the Phase/Task section of the Contract the following will also apply:

The Professional shall satisfy **29 CFR 1910.120** and Section 24 of Act 154 PA 1974 as amended and corresponding rules and all federal, state, and local statutes, regulations, ordinances, etc., regarding health and safety **(40 CFR 35.6055(b)).**

Prior to executing any work at the assigned site, the Professional shall develop and submit all HASPs for the site to the Agency Project Manager for review, acceptance, and inclusion into the work plan.

The Professional shall arrange for all its employees that will be working on a contaminated site to attend a health and safety training course, and/or a personnel protection course. The Professional is responsible for all costs related to the training. When requested by the State, the Professional must provide proof of completion of health and safety training for each employee working on a site prior to the employee entering the site for any purpose.

The Professional will ensure that employees and sub-consultant's/subcontractor's employees wear protective clothing and use equipment specified in the site Health and Safety Plan at all times the employee is on the site.

Health and Safety Training and Medical Monitoring are not considered reimbursable items under this Contract. When working in any level of safety equipment, the level itself does not dictate additional costs, but the equipment costs above Level D are reimbursable.

INVOICING AND PAYMENT PROCEDURES

Documentation for payment will be submitted monthly per the requirements in the Contract. Project costs will be reimbursed to the Professional on an as-incurred basis in accordance with the terms of the Contract for Professional Services. Invoices received covering service periods for which the progress reports have not been received by the State will not be processed until the progress reports are received. These will be considered incomplete invoices.

Each invoice that includes labor will include a one-page summary sheet that lists by date the name of the individual providing the professional service, the individual's position/classification, hours worked that day, and hourly billing charge. Each invoice that includes reimbursable expenses will include a one-page summary with the following categories: Meals, Lodging, Travel, Shipping, Equipment Rental, Field Supplies/Equipment Purchase, sub-consultants, and Miscellaneous. Under Meals and Lodging categories, the date, name of the individual and total daily cost will be included. Under Travel category, the Professional will include the date, name of the individual, total mileage (above the allowed amount specified in the Contract), mileage rate, and total daily cost. Under Shipping, the Professional will include the date shipped, description of item shipped (e.g., tech memo, etc.) and the cost to ship the item. Under Equipment Rental, the Professional will include the range of dates equipment rented, description of equipment rented and rental cost. Under Field Supplies/Equipment Purchase and Miscellaneous categories, the Professional will include the date purchased, description and purpose of the item purchased and the cost. Under subconsultants/subcontractors, the Professional will list the date of the subconsultant/subcontractor work, name of the sub-consultant/subcontractor, description of work conducted, and the cost. The cost for each category will be totaled.

<u>Contract Close-Out</u> – Final payment shall be withheld until all deliverables have been received and accepted by the State. In addition, the Professional will be required to submit to the Agency Project Manager, an unconditional waiver, signed by an authorized representative of each sub-consulting/subcontracting firm, used on the project, indicating that they have been paid in-full by the Professional for all work performed.

LITIGATION SUPPORT

The Professional's personnel and the personnel of its sub-consultants/subcontractors will be required, if requested by the Agency Project Manager on behalf of EGLE's attorneys, to provide assistance to the State in the form of participation in legal actions against alleged responsible parties for violation of state and/or federal environmental law or the recovery of public expenditures regarding any of the operations the Professional or its sub-consultants/subcontractors are involved in under this Contract. This assistance may include, but is not limited, to the preparation of reports and assisting state and/or federal attorneys in preparation of the government's case, including the preparation and execution of interrogatories, affidavits, and testimony as a fact witness.

The State will reimburse the Professional for such assistance as described above at the contractually approved rates for the Professional's personnel at the time services are required. The Professional shall insert an identical obligation to provide such assistance in all sub-consultants/subcontractor agreements to perform work under this Contract. Failure to meet the requirement of this section shall be considered a breach of this Contract.

In addition, the Professional agrees that upon the Agency Project Manager request on behalf of the State attorney, that the Professional's personnel or the personnel of its subconsultants/subcontractor will appear at trial as an expert witness. If expert testimony is requested, the Professional and State mutually agree while the State cannot, due to Section 2164 of the Revised Judicature Act, guarantee to pay the Professional's personnel any sum in excess of the current per day expert witness fee, the State attorney may ask the court to permit the State to pay the Professional's personnel for the appearance as an expert witness on behalf of the State, at a rate equal to the rate of the employee's contractually approved rates at the time services are required, for the actual time of court appearance plus travel time and standard expenses as defined in the Contract. To the extent that the court grants such a request, the Professional agrees to reimbursement at such rates.

- 1. If the Professional receives a subpoena or if an Assistant Attorney General assigned to the site requests information regarding one of the Professional's assignments, the Professional may release that information without the Agency Project Manager's prior written permission. However, the Professional must provide, in writing, to the Agency Project Manager a letter documenting what information has been released, to whom and when. Any other requests to release information continue to require the Agency Project Manager prior written permission. The party requesting the information has an obligation to pay for any copying costs. If the State requests duplicate copies, the State will reimburse the Professional for copying costs.
- 2. If a party other than the State requests the Professional provide testimony regarding an assignment for which they have performed work under this Contract, either through deposition or testimony in court, the State will <u>NOT</u> reimburse the Professional for that testimony. Depositions or testimony requested by parties other than the State are not covered by this Contract, and payment for a deposition or testimony may be prohibited by MCL 600.2164.

3. If a State Assistant Attorney General requests the Professional assist in preparation for litigation, i.e., answering interrogatories, preparing for trial via interviews, and discussions concerning the site, this time is reimbursable under this Contract.

PROJECT CONTROL REPORTS AND DELIVERABLES

1. Deliverables

The Professional shall provide electronic copies of all final reports, plans, specifications, drawings, and other significant deliverables in Microsoft Word, Excel, AutoCAD, and ArcGIS as applicable, as well as in separate PDF format, provided on one (1) portable media device. Reports that require submittal into RIDE shall be submitted by the Professional as applicable. In addition, the Professional shall provide one unbound, reproducible copy of each deliverable for each of the assigned projects or as specified in the assigned project scope of work. The Department/Agency will be responsible for obtaining access to the assigned sites, providing a map for the assigned sites, and where applicable, previous investigation/analytical results for work conducted at the assigned sites.

- 2. Project Control
 - A. The Professional will carry out the assignments under this Contract under the direction of the Project Director and/or the Agency Project Manager.
 - B. The Professional will submit brief written monthly (or any other interval deemed necessary by the State) progress reports that outline: the work accomplished during the reporting period including basis for significant decisions; work to be accomplished during the subsequent reporting period; daily field activity logs; problems, encountered or anticipated; notification of any significant deviation from the approved work plans; and budget/expenditure information including: project budget, cumulative expenses, projected expenses, and explanations of budget deviations for each major task. <u>Staff time and costs to correct errors, omissions, and deficiencies in the work are not reimbursable.</u> The Agency Project Manager may adjust the frequency of reports depending upon the nature of the project or phase of a particular project.
- 3. Reports

All project reports required as deliverables to this Contract will begin with an Executive Summary.

This will briefly outline the conditions encountered at the site, work performed at the site, conclusions drawn from this work, a list of the recommended alternatives for site remediation (where applicable), and a short description of any specifications prescribed by the report. The Executive Summary will be a synopsis of all information presented in the report and organized in logical manner to present an overview of the specific report. Each assignment will require specific reporting requirements.

The following are examples of reports that may be required from the Professional:

- A. Monthly progress reports.
- B. Draft and Final Preliminary Site Investigation Work Plans and assessment reports
- C. Draft and Final FS/RI Work Plans and reports
- D. RI technical memoranda for groundwater sampling, surface water sampling, soil/sediment sampling, air quality sampling, and site hazards assessment. The technical memoranda should summarize the data and collection techniques and include an evaluation of the data.
- E. Daily field logs which include equipment and supply charges and personnel on site. These shall be maintained and attached to the corresponding monthly-progress reports.

The following tasks may be required to produce reports/work products listed above:

- Community Relations
- FS (including Risk Assessment)
- Natural Resource Damage Assessment (NRDA)
- UST removal/closure and other Related Work
- Potentially Responsible Party (PRP) Identification
- Preliminary Site Investigation
- Risk-Based-Corrective-Action Activities
- RI and recommendations
- Baseline Environmental Assessments Review
- Contract Transition Tasks

All draft documents and communications with the State regarding guidance, input, acceptance, and approval shall be marked "DRAFT" and "Deliberative Process – FOIA Exempt". Information so designated shall not be provided in response to a Freedom of Information Act (FOIA) request.

4. The Professional and/or its sub-consultants/subcontractors shall follow the current edition of ASTM Standard D 5299-92 (Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities) and other guidance as provided by the State as a performance standard for monitoring well, soil boring, and vadose zone monitoring device abandonment.

SELECTION CRITERIA

Responses to this RFP will be evaluated based upon the technical merit, conciseness, clarity, creativity, thoroughness of the proposal, understanding of the assignments and contract requirements. Also, evaluations of qualifications and experience will be conducted for each of the project types checked in the proposal.

Depending on available funding for cleanup activities, the State anticipates awarding contracts to one or more professionals meeting the requirements of the RFP and receiving the highest scores in the evaluation. The State reserves the right not to award the contract(s) or award contract(s) to one or more firms for the submitted proposals. The State may reject proposals in whole or in part and may waive any informality or technical defects if, in the judgment of the selection committee, the best interest of the State will be served.



Department of Technology, Management and Budget 2023 Indefinite-Scope Indefinite-Delivery – Request for Qualifications Professional Environmental Consulting Services Questionnaire Various Locations, Michigan

INSTRUCTIONS: Firms shall complete the following information in the form provided. A separate sheet may be used if additional space is needed; please key the continuation paragraphs to the questionnaire. Answer questions completely and concisely to streamline the review process. If you provide information in this questionnaire that is relevant to any other parts of the proposal, please reference the article numbers to avoid repetition.

ARTICLE 1: BUSINESS ORGANIZATION

 Full Name: <u>Click or tap here to enter text.</u> Address: <u>Click or tap here to enter text.</u> Telephone and Fax: <u>Click or tap here to enter text.</u> Website: <u>Click or tap here to enter text.</u> SIGMA Vendor ID: <u>Click or tap here to enter text.</u>

If applicable, state the branch office(s), partnering organization or other subordinate element(s) that will perform, or assist in performing, the work: <u>Click or tap here to enter text.</u>

If awarded a contract and / or subsequent assignment(s), state the specific SIGMA business address which you would like associated for all communication (Contracts, Contract Order, Contract Modifications and Payments)? <u>Click or tap here to enter text.</u>

Please list all person(s) authorized to receive and sign a resulting contract and / or subsequent assignment(s). Please include persons name, title, address, email and phone number. <u>Click or tap here to enter text.</u>

2. Check the appropriate status:

Individual firm Association Partnership Corporation, or Combination –

Explain: Click or tap here to enter text.

If you operate as a corporation, include the state in which you are incorporated and the date of incorporation: <u>Click or tap here to enter text.</u>

Include a brief history of the Professional's firm: Click or tap here to enter text.

3. Provide an organization chart depicting key personnel and their roles for a typical assigned project. Include generic supporting staff positions.

- 4. Has there been a recent change in organizational structure (e.g., management team) or control (e.g. merger or acquisition) of your company? If the answer is yes: (a) explain why the change occurred and (b) how this change affected your company. <u>Click or tap here to enter text.</u>
- 5. Provide a four year rate schedule per position.

ARTICLE 2: PROJECT TYPES AND SERVICES OFFERED

Identify the project types and professional services for which your firm is exceptionally qualified and experienced. Contractor should have the capability to form potential teams with adequate experience in environmental investigation and remediation services. Provide attachments illustrating a minimum of three examples, with references, of successful projects performed in the last five years for each item checked. Identification of specialties will assist the State project directors/managers in matching firms with projects.

□ Asbestos / Lead / Mold / Biohazard / Free Product / Regulated Waste Survey /

Abatement

- □ Brownfield Development
- Ecological Risk Assessment / Forestry and Land Management / Wetland
 Mitigation / Streams and Lakes Restoration
- Environmental Investigation / Characterization / Pilot Tests / Feasibility Study
- Environmental/ Roto Sonic Drilling / Well Abandonment
- Ground Penetrating Radar (GPR) / Laser-Induced Fluorescence (LIF) Field Screening
- □ Landfill Maintenance / Monitoring
- □ Nuclear Waste Management / Disposal / Remediation
- Der-& Polyfluoroalkyl Substances (PFAS) Sampling / Mitigation / Remediation
- D Phase I / Phase II / Baseline Environmental Assessments
- □ Remediation Systems Design / Construction Oversight / O&M / Decommissioning
- □ Specialty Sub-Surface / Utility Inspection / Sewer Camera / Cleaning
- □ Underground / Aboveground Storage Tank (UST/AST) Removal / Demolition /
- Soil Excavation / Closure
- □ Vapor Intrusion Assessments / Risk Mitigation / Design / Installation / O&M Services

ARTICLE 3: PROJECT LOCATION

Identify the regions where your firm can most efficiently provide services. Assignments may vary from the regions checked, depending on the specialties and services required.

- □ Western Upper Peninsula (west of Marquette)
- □ Eastern Upper Peninsula (east of Marquette)
- □ Northern Lower Peninsula (north of Grayling)
- □ Saginaw Bay area (east of 127, north of I-69 and M 57, south of Grayling)
- U Western Lower Peninsula (west of 127, north of Muskegon, south of Grayling)
- □ Central Lower Peninsula (east of Battle Creek, west of Chelsea, south of M 46 and M 57)
- □ Southwestern Lower Peninsula (west of Battle Creek, south of Muskegon)
- □ Southeastern Lower Peninsula (east of Chelsea, south of I-69)

ARTICLE 4: CONTRACT UNDERSTANDING

The following items should be addressed on the assumption that your firm is awarded an Indefinite-Scope, Indefinite-Delivery contract. (See attached sample contract).

4.1 Is it understood that your firm is required to respond to small projects (less than \$25,000) as well as larger projects?

Yes □ No □

4.2 Is it understood that there is no guarantee of any work under this contract?

Yes □ No □

4.3 Is it understood that your firm will be required to execute the attached standard State of Michigan contract language for professional services?

Yes 🗆 No 🗆

4.4 Is it clearly understood that professional liability insurance is required at the time of execution of the ISID contract? (See Article 5 of the attached Sample Contract.)

Yes 🗆 No 🗆

4.5 Is it understood that your firm must comply with State of Michigan law as it applies to your services?

Yes □ No □

4.6 Does your firm have prior experience working with the State of Michigan?

Yes □ No □

If yes, explain: Click or tap here to enter text.

ARTICLE 5: CAPACITY AND QUALITY

5.1 Briefly describe your firm's methods and procedures for quality control for your deliverables and services.

Click or tap here to enter text.

5.2 Has your firm been involved in claims or suits associated with professional services errors and / or omissions?

Yes □ No □

If yes, explain: Click or tap here to enter text.

5.3 Will there be a key person who is assigned to a project for its duration?

Yes 🗆 No 🗆

5.4 Please present your understanding of the relationship between your firm, the DTMB Design and Construction Division, and the State Agency for whom a project will be completed.

Click or tap here to enter text.

5.5 Describe your approach if a bidder proposes a substitution of a specified material during bidding.

Click or tap here to enter text.

5.6 Describe your approach if a contractor proposes a substitution of a specified material or detail with shop drawing submittals or in construction.

Click or tap here to enter text.

5.7 How will your firm provide consistent and continuous communication pertaining to project activities and project status to the State of Michigan during the progress of projects?

Click or tap here to enter text.

5.8 Does your company have an FTP or similar site for quick posting and distribution of information, drawings, field inspection reports, and other communications?
 Yes □ No □

5.9 Describe your method of estimating construction costs and demonstrate the validity of that method.

Click or tap here to enter text.

5.10 Describe your approach to minimizing construction cost over-runs.

Click or tap here to enter text.

5.11 What percentage of the construction cost should be devoted to construction administration (office and field)?

Click or tap here to enter text. %

5.12 What portion of the assigned work will be performed with your staff and what portion will be provided by sub-consultants?

Click or tap here to enter text. %

5.13 On a typical project, what would be your response time, from the time receive a project assignment to starting investigation and design work? A typical project might be one involving several disciplines and in the neighborhood of a \$25,000 fee.)

Click or tap here to enter text. Days/Weeks

5.14 How do you assess whether a construction bidder is responsive and responsible?

Click or tap here to enter text.

5.15 Describe your experience with similar ISID contracts.

Click or tap here to enter text.

5.16 Describe your approach to a construction contractor's request for additional compensation for a change in the project scope.

Click or tap here to enter text.

5.17 Is a sample of field activity logs detailing a 1-week period (from one of the three (3) prior experience sites) and a weekly report provided?

□Yes □No

ARTICLE 6: PERSONNEL STAFFING

6.1 Is an organizational chart that includes each person on your project team and their identified roles for a typical assigned project provided?

□Yes □No

6.2 Please fill out the following information regarding the personnel your firm considers key to the successful completion of the study or project scope of work:

Key Personnel 1

Name: Click or tap to enter text Job Title: Click or tap to enter text Labor Classification: Click or tap to enter text College Degree(s): Click or tap to enter text

Has this individual successfully completed 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training with an up to date 8 hour HAZWOPER refresher training?

□Yes □No

Key Personnel 2

Name: Click or tap to enter text

Job Title: Click or tap to enter text

Labor Classification: Click or tap to enter text

College Degree(s): Click or tap to enter text

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? □Yes □No

Key Personnel 3

Name: Click or tap to enter text Job Title: Click or tap to enter text Labor Classification: Click or tap to enter text College Degree(s): Click or tap to enter text

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? □Yes □No

Key Personnel 4

Name: Click or tap to enter text Job Title: Click or tap to enter text Labor Classification: Click or tap to enter text

College Degree(s): Click or tap to enter text

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? □Yes □No

Key Personnel 5

Name: Click or tap to enter text Job Title: Click or tap to enter text Labor Classification: Click or tap to enter text College Degree(s): Click or tap to enter text

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? □Yes □No

6.3 Does the Professional Project Manager (PM) have at least three years' experience as a PM? □Yes □No

6.4 Does the Professional PM have a minimum of 10 years' experience with similar projects? □Yes □No

6.5 Are the resumes for the key personnel provided? □Yes □No

ARTICLE 7: SPECIAL FACTORS

Include a brief description of your firm's special qualifications such as awards, recognitions, innovations, etc. that would pertain to this RFP. (As examples: any awards or recognition received by the firm or individuals for similar work, special approaches or concepts developed by the firm appropriate to this project, financial capacity, etc. Respondents may say anything they wish in support of their qualifications). Click or tap here to enter text.

ARTICLE 8: EXPERIENCE

8.1 Provide a client reference and brief descriptions of **at least three (3) projects in the last five years closely related to each of the project types** and professional services requested in this RFP. Emphasis shall be placed on recent work at sites of environmental contamination:

Project 1 Reference Information

Project Name: Click or tap to enter text Project Address: Click or tap to enter text Key Personnel: Click or tap to enter text Project City / State / Zip: Click or tap to enter text Contact Name / Phone Number / Email Address: Click or tap to enter text Project Description: Click or tap to enter text Project 2 Reference Information

Project Name: Click or tap to enter text

Project Address: Click or tap to enter text

Key Personnel: Click or tap to enter text

Project City / State / Zip: Click or tap to enter text

Contact Name / Phone Number / Email Address: Click or tap to enter text

Project Description: Click or tap to enter text

Project 3 Reference Information

Project Name: Click or tap to enter text Project Address: Click or tap to enter text Key Personnel: Click or tap to enter text Project City / State / Zip: Click or tap to enter text Contact Name / Phone Number / Email Address: Click or tap to enter text Project Description: Click or tap to enter text

GUIDELINES FOR POSITION CLASSIFICATIONS

The Professionals are required to use the following guidelines as the basis for classification of personnel to be assigned under their contracts. Changes in the key personnel under the contract must be done by Contract Modification. In addition, the Professionals must provide with their modification requests the names, hourly billing rates, and resumes for the new **Key Personnel** to be added to the contracts. A Key Personnel is any staff member of the Professional who is essential for the successful completion of the Project scope of work and authorized to make decisions affecting the work at the sites under the contracts.

1. PROFESSIONAL KEY PERSONNEL

A. Level 4 (P4) - Plans, conducts, and supervises projects of major significance, necessitating proven managerial skills and knowledge of hazardous waste sites. Must demonstrate ability to originate and apply new and/or unique methods and procedures. Supplies technical advice and council to other professionals. Generally, operates with wide latitude for independent action.

Typical Title:

National Manager, Project Leader, Chief Engineer, or Scientist.

Qualifications and Experience:

Ph.D. degree with 10 years or more experience.

MS degree with 12 years or more experience.

BS degree with 14 years or more experience.

Experience Factors:

Technical experience in discipline directly related to the requirements of this contract. Minimum of 4 years' experience in supervising multidisciplinary professionals and general office management including budgetary requirements.

B. Level 3 (P3) - Under general supervision of P4 Manager, plans, conducts and supervises assignments on a project- by-project basis. Estimates and schedules work to meet completion dates. Directs assistance, reviews progress and evaluates results; makes changes in methods, design or equipment are made where necessary. Responsible for safe and cost-effective approaches to achieve the objectives of the project.

Typical Title:

Regional Team Leader, Project Engineer.
Qualifications and Experience:

Ph.D. degree with 4 to 10 years' experience MS degree with 6 to 12 years' experience BS degree with 8 to 14 years' experience

Experience Factors:

Technical experience in disciplines directly related to the requirements of this contract. Minimum of 4 years' experience or equivalent. Must have demonstrated ability to manage group of interdisciplinary professionals.

2. PROFESSIONAL NON-KEY PERSONNEL

A. Level 2 (P2) - Under supervision of a senior or project leader, carries out assignments associated with projects. Work assignments are varied and require some originality and ingenuity. Applies training of professional discipline to assigned projects and translates technical guidance and training received into usable data products and reports. Evaluates data associated with various watersheds for use in developing digital flood insurance map production and development of updated flood data.

Typical Title:

Surveyor, Engineer, Construction Manager, Project Manager, Scientist, Analyst

Qualifications and Experience:

MS degree with 2 to 6 years' experience.

BS degree with 3 to 8 years' experience.

Experience Factors:

Minimum of 2 years in area directly related to contract requirements.

B. Level 1 (P1) - Entry level for professional classification; works under supervision of team or project leader. Gathers and correlates basic data and performs routine tasks and other duties as assigned. Makes recommendations on work assignments and on variables which affect field operations. Assists field operations as directed, including manual tasks of equipment setup and maintenance. Performs other duties as assigned.

Typical title:

Junior Associate (Surveyor, Engineer, Scientist, Geologist, etc.)

Qualifications and Experience:

MS degree with 0 to 2 years' experience.

BS degree with 0 to 3 years' experience.

Experience Factor: None

3. TECHNICIAN NON-KEY PERSONNEL

A. Level 3 (T3) - Performs non-routine and complex assignments. Works under general supervision of a surveyor, scientist or engineer. Performs experiments or tests which may require non-standard procedures and complex instrumentation. Records, computes and analyzes test data, prepares test reports. May supervise lower level technicians or trades personnel.

Typical Title:

Senior Technician

Qualifications and Experience:

6 years or more experience.

Experience Factor:

Related to scope of contract.

B. <u>Level 2</u> (T2) - Performs non-routine and complex tasks in addition to routine assignments. Works at the direction of the team or project leader. Gathers and correlates basic data and performs routine analyses. May also perform experiments or tests which may require non-standard procedures and complex instrumentation. May construct components or sub-assemblies or prototype models. May troubleshoot malfunctioning equipment and make simple repairs as authorized by team or project leader.

Typical Title:

Senior Technician

Qualifications and Experience:

Two to six years' experience or equivalent

Experience Factor:

Related to scope of contract.

C. Level 1 (T1) - Entry level; performs simple, routine tasks under supervision as established in chain-of- command procedures. Performs routine maintenance and may install, set up or operate field equipment of moderate complexity. Provides a wide variety of support functions during field operations.

Typical Title:

Junior Technician (field technician)

Qualifications and Experience:

0 to 2 years' experience.

Experience Factor:

None

4. TECHNICAL SUPPORT (TS) NON-KEY PERSONNEL

Performs project specific technical support work such as spreadsheet preparation, data entry, etc.

Typical Title:

Project Assistant, Data Entry Clerk, etc.

Qualifications and Experience:

0 to 2 years or more

POSITION, CLASSIFICATION AND EMPLOYEE BILLING RATE INFORMATION

PROFESSIONAL SERVICES - 2023 ENVIRONMENTAL ISID

Firm Name ______ Yearly Percentage Billing Rate Increase______

_

LEVEL	CLASSIFICATION]				
		Year 2023	Year 2024	Year 2025	Year 2026	Year 2027
_			_		_	_

*Billing Rate will be in accordance with the attached guideline page for instructions regarding the "Overhead Items used for Professional Billing Rate Calculation," and the attached "Sample Standard Contract for Professional Services," Article II, Compensation.

** Key Project Personnel

COST OR PRICE SUMMARY Form appro OMB No. 20 OMB No. 20 Approval ex Approval ex							
PART I - GENERA	Ĺ	<u> </u>		,			
1. RECIPIENT 2. ASSISTANCE IDENTIFICATION N							
3. NAME CONTRACTOR OR SUBCONTRACTOR 4. DATE OF PROPOSAL							
5. ADDRESS OF CONTRACTOR OR SUBCONTRACTOR (Include ZIP Code) 6. TYPE OF SERVICE TO BE FURNISHE							
TELEPHONE NUMBER(Include Area Code)							
PART II - COST SUMM	IARY	,					
7. DIRECT LABOR (specify labor categories)	EST H(IMATED OURS		HOURLY RATE	ESTIMATED COST	TOTALS	
			\$		\$		
8. INDIRECT COSTS (Specify indirect cost pool)	R	ATE		x BASE =	ESTIMATED COST	\$	
			\$		\$		
INDIRECT COSTS TOTAL:						\$	
9. OTHER DIRECT COSTS					ESTIMATED		
a. TRAVEL					COST		
(1) TRANSPORTATION (2) PER DIEM					\$		
TRAVEL SUBTOTAL:					\$		
b. EQUIPMENT, MATERIALS, SUPPLIES (Specify categories)	(Ω ΤΥ		COST	ESTIMATED COST		
			<u></u>		\$ 		
EQUIPMENT SUBTOTAL:							
c. SUBCONTRACTS ESTIMATED COST							
					\$		
SUBCONTRACTS SUBTOTAL:					\$		
d. OTHER (Specify categories)					ESTIMATED COST		
					\$		
OTHER SUBTOTAL:					\$		
e. OTHER DIRECT COSTS TOTAL:						\$	
10.TOTAL ESTIMATED COST						\$	
12. TOTAL PRICE						Ψ \$	

	PART III - PRICE SUMMARY									
13. COMPETITOR'S CATALO	G LISTINGS, IN-HOUSE ESTIMATES, PRIOR QUOTES	MARKET	PROPOSED							
			TRICE							
			4							
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			-							
			1							
			4							
		<u> </u>	-							
			\$							
	PART IV - CERTIFICATIONS		L ¥							
14 CONTRACTOR										
14a. HAS A FEDERAL AGENCY OR FEDERA	LLY CERTIFIED STATE OR LOCAL AGENCY PERFORMED ANY I	REVIEW OF YOUR A	CCOUNTS OR							
RECORDS IN CONNECTION WITH ANY	OTHER FEDERAL ASSISTANCE AGREEMENT OR CONTRACT	WITHIN THE PAST 12	2 MONTHS?							
YES NO (If "Yes" give name,	address, and telephone number of reviewing office)									
14b. THIS SUMMARY CONFORMS WITH TH	E FOLLOWING COST PRINCIPLES									
14. This proposal is submitted for use in sonn	estion with and in reanance to:									
(1)	ection with and in Tesponse to.									
This is to certify to the best of my knowled	lge and belief that the cost and pricing data summarized herein are	(2) [DATE							
Litther certify that a finacial management	canability exists to fully accurately account for the finacial transaction	ns under this project	I further certify that I							
understand that the subagreement price n	nay be subject to downward renegotiation and/or recoupment where	the above cost and pr	icing data have beer							
determined, as a result of audit, not to have	/e been complete, current, and accurate as of the date above.									
(3) TITLE OF PROPOSER	SIGNATURE OF REVIEWER	DAT	TE OF EXECUTION							
15. RECIPIENT REVIEWER										
I certify that I have reviewed the cost/price	e summary set forth herein and the proposed cost/price appear accep	otable for subagreeme	ent award.							
TITLE OF PROPOSER	SIGNATURE OF REVIEWER	DAT	TE OF EXECUTION							
16. EPA REVIEWER		I								
TITLE OF PROPOSER	SIGNATURE OF REVIEWER	DA	TE OF EXECUTION							

PURPOSE AND APPLICABILITY

The purpose of this form is to provide a simple form for the display of cost and price data. 40 CFR 33.290 requires the recipient to perform cost or price analysis for every procurement action, including subagreement modifications. This form is not required by EPA, but may be used at the recipient's option. If the recipient currently uses a cost and price analysis form which accomplishes the same objectives as this form, the recipient may use its own form.

INSTRUCTIONS

If this form is used, CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS. Many items are not self-explanatory. Attach additional sheets if necessary.

Use only the applicable portion of this form:

Part I is applicable to all subagreements.

Part II is applicable to all subagreements requiring a cost analysis pursuant to EPA procurement regulations.

Part III is applicable to all subagreements where review is based on price comparison (i.e., price analysis).

Part IV certification will be executed as required by the instructions for each block.

PART I - GENERAL

Item 1 - Enter the name of the of the recipient as shown on the assistance agreement.

Item 2 - Enter the assistance identification number shown on the assistance agreement (or assigned to the project, if no assistance agreement has yet been executed).

Item 3 - Enter the name of the contractor or subcontractor with whom the subagreement is proposed to be executed.

Item 4 - Enter the date of the contractor's or subcontractor's proposal to the recipient.

Item 5 - Enter the full mailing address of the contractor or subcontractor. **Item 6** - Give a brief description of the work to be performed under the proposed subagreement.

Part II - COST SUMMARY

This portion of the form is to be completed by the contractor (or his/her subcontractor) with whom a subagreement is a formally advertised, competitively bid, fixed price subagreement.

Nothing in the following discussion should be interpreted as recommending the inclusion as direct costs any items normally treated as overhead costs in the firm's accounting or estimating system. 40 CFR Part 30 identifies general cost principles applicable to subagreements under EPA assistance. Pursuant to that Part, all subagreements awarded to profit-making organizations are subject to cost principles of 48 CFR 31.2. Architect engineer and construction contracts are also subject to 48 CFR 31.105.

Item 7 - Direct Labor

Direct labor costs normally include salaries at a regular time rate. Overtime premiums should be identified separately on an attachment. Incurrence of unanticipated overtime costs requires the approval of the recipient at the time of incurrence. If significant overtime is known to be needed at the time of completion of the cost review form, the reasons therefore, labor categories, rates and hours should be identified on the attachment. Also included is the cost of partners' or principals' time when they are directly engaged in services to be rendered under the subagreement. In case the full time of any employee is not to be devoted to work to be performed under the subagreement, only the cost of actual time to be applied should be included. The compensation of a partner or principal shall be included as direct cost only for the time that she/he is expected to be engaged directly in the performance of work under the subagreement and only if it is the firm's normal practice to charge such time directly to all jobs. The rate of compensation of a partner or principal shall be commensurate with the cost of employing another qualified person to do such work, but the salary portion shall not exceed the actual salary rate of the individual concerned. Distribution of profits shall not be included in the rate of compensation.

Enter in block 7 the categories of professional or technical personnel necessary to perform each major element of work under the subagreement scope of services. Estimate hours worked for each category and extend them by the wage rates to be paid during the actual performance of the work. Current rates, adjusted for projected increases, if any should be useful for the actual categories of labor contemplated. All projected increases should be supported by recent experience or established personnel policy. Enter in the far right column the total estimated direct labor cost.

Supporting records to be maintained by the contractor and which must be submitted or made available to the recipient or EPA upon request include:

a. The method of estimating proposed hours worked.

b. The computation techniques used in arriving at proposed labor rates.c. The specific documents, books or other records used as factual source material to develop proposed hours worked and labor rates.

d. Detailed rate computations which were used in computing the information submitted on the form.

If in block 14a, the contractor has checked "No," a brief narrative description of the methods used in arriving at items a though d above shall be included on an attached sheet.

Item 8- Indirect Costs

Indirect cost may consist of one or more pools of expenses which are grouped on the basis of the benefits accruing to the cost objectives represented by the distribution base or bases to which they are allocated. Since accounting practices vary, the use of particular groupings is not required. Neither is the use of any particular allocation base mandatory. However, it is mandatory that the method used results in an equitable allocation of indirect costs objectives which they support.

Normally, the firm's accounting system and estimating practices will determine the method used to allocate overhead costs. The firm's established practices, if in accord with generally accepted accounting principles and PROVIDED THEY PRODUCE EQUITABLE RESULTS IN THE CIRCUMSTANCES, will generally be accepted. Proposed overhead rates should represent the firm's best estimate of the rates to be experienced during the subagreement period. They should be based upon recent experience and be adjusted for known factors which will influence experienced trends.

Common overhead groupings are overhead on direct labor and general and administrative expenses. The first groupings usually include employment taxes, fringe benefits, holidays, vacation idle time, bonuses, applicable and direct labor, etc. The second generally includes the remaining costs, which, because of their incurrence for common or joint objectives, are not readily subject to treatment as direct costs. It is expected, however, that proposal groupings will correspond with the firm's normal method for accumulating indirect costs. (Under some accounting systems, the first grouping would be included instead under item 7.) No special categorization is required, provided the results are realistic and equitable.

Direct salaries are the normal distribution base for overhead cost but in some circumstances other bases produce more equitable results. As in the case of overhead cost groupings, the method to be used will depend upon the firm's normal practices and the equity of the results produced in the circumstances.

In the case of multibranch firms, joint ventures, or affiliates, it is expected that overhead costs applicable to specific location(s) where

work is to be based on cost data from the most recent fiscal periods updated to reflect changes in volume of business or operations.

Enter in block 8 the indirect cost pools normally used by the firm for allocation of indirect costs. Enter indirect cost rate for each pool and extend each one by the rate base to which it applies to arrive at the estimated indirect costs to be incurred during the actual performance of the work. If the indirect labor total from block 7 is not used as the rate base for any of the indirect cost pools, the rate base used must be explained on an attached sheet.

A brief narrative statement outlining the firm's policies and practices for accumulating indirect costs. Enter the indirect cost rate costs and the method used to compute the proposed rate or rates shall accompany the form. Include comment on the firm's policies regarding the pricing and costing of principals' time. The normal accounting treatment of principals' salaries, the annual amounts, and the hourly charge rate, if used, should be discussed.

Enter in the far right column the total estimated indirect costs.

Supporting records to be maintained by the contractor and which must be submitted or made available to the recipient or EPA upon request include:

a. Detailed cost data showing overhead accounts, allocation bases, and rate computations for the preceding fiscal period. If more than six months of the current fiscal period have elapsed, cost data for this period should be included as one of the three period(s).

b. Company budgets, budgetary cost data and overhead rates computations for future period(s).

Item 9 - Other Direct Costs

The following items are illustrative of costs normally included in this category of costs:

a. Travel cost, including transportation, lodging, subsistence, and incidental expenses incurred by personnel or consultants while in travel status in connection with the performance of services required by the contract. The cost principles generally require the use of less than first class air accommodations and also limit the cost of private aircraft.

b. Equipment, Materials, and Supplies

(1) Long distance telephone calls, telegraph and cable expenses to be incurred in connection with the performance of services required in connection the subagreement.

(2) Reproduction costs, including blueprints, black and white prints, ozalid prints, photographs, photostats, negatives; and express charges.

- (3) Commercial printing, binding, artwork, and models.
- (4) Special equipment.
- c. Subcontractors
- d. Other Direct costs, if any, not included above.

Enter in blocks 9a-d all other direct costs proposed. Travel costs entered must be supported by an attachment which identifies the number of staff trips proposed and the estimated cost per staff trip for both local and long distance transportation. The number of days and the rate per day must be provided to support the per diem shown. Each subcontract and consultant agreement must be identified separately in block 9c.

Enter in the far right column on line 9e the total of all other direct costs (9a-d).

Supporting data to be maintained by the contractor and which must be submitted or made available to the recipient or EPA upon request include:

a. basis for other direct costs proposed.

b. factual sources of costs, rates, etc., used in computing proposed amount of each cost element.

Item 10 - Total Estimated Cost

Enter the total of all direct labor, indirect costs and other direct costs from items 7, 8, and 9.

Item 11 - Profit

A fair and reasonable provision for profit cannot be made by simply applying a certain predetermined percentage to the total estimated cost. Rather, profit will be estimated as a dollar amount after considering:

- a. degree of risk.
- b. nature of the work to be performed.
- c. extent of firm's investment.
- d. subcontracting of work, and
- e. other criteria.

The Federal Acquisition Regulation cost principles applicable to subagreements with profit-making organizations (40 CFR 31.2 and 31.105) disallow certain types of costs which are sometimes incurred by firms in the normal conduct of their business. Examples of costs which are not allowable under these costs principles include, but are not limited to, entertainment, interest on borrowed capital, and bad debits. Because the Government considers "profit" to be the excess of price over allowable costs, such computation can indicate a higher profit estimate that the firm's experienced profit as it customarily computes it. The contractor may separately disclose to the recipient its customary computations.

Enter the dollar amount of profit in block 11.

Item 12 - Total Price

Enter the total of items 10 and 11.

Part III - PRICE SUMMARY

This portion of the form is for use by a recipient when price comparison, i.e., price analysis, is used subagreement review. It may also be used by a contractor when price comparison is used as a basis for award of a subcontract.

Item 13 - Competitor's Catalog Listings, In-House Estimates, Price Quotes

Enter sources of all competitive bids or quotes received, or catalogs used and their prices, or in-house estimates made, if appropriate, for comparison. Attach additional sheets if necessary, particularly for purchases of several different items.

Enter in the far right column the proposed price for the subagreement.

Part IV - CERTIFICATIONS

Item 14 - Contractor - FOR USE BY CONTRACTOR OR SUBCONTRACTOR ONLY.

Complete this block only if part II has been completed.

Enter the specific cost principles with which the costs summary of Part II conforms. Cost principles applicable to subagreements with various types or organizations are identified in 40 CFR Part 30.4010. Cost principles applicable to subagreements with profit-making organizations are those at 48 CFR 31.2 and, for architect-engineer or construction contracts, 48 CFR 31.105.

c. (1) **Describe** the proposal, quotation, request for price adjustment, or other submission involved, giving appropriate identifying number (e.g., RFP No. _____).

(2) **Enter** the date when the price negotiations were concluded and the contract price was agreed to. The responsibility of the subagreement is not limited by the personal knowledge of the contractor's negotiator if the time of agreement, showing that the negotiated price is not based on complete, current, and accurate data.

(3) **Enter** the date of signature. This date should be as close as practicable to the date when the price negotiations were concluded and the subagreement price was agreed to (not to exceed 30 days).

Item 15 - Recipient Reviewer - FOR USE BY RECIPIENT ONLY.

If required by applicable assistance regulations, the recipient must submit the signed form for EPA review prior to execution of the subagreement.

Item 16 - EPA Reviewer - FOR USE BY EPA ONLY.

ISID - Environmental (Billing Rate) Indefinite-Scope, Indefinite-Delivery Contract R 02/28/19



STATE OF MICHIGAN

DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

This contract authorizes the professional services contractor to provide professional services. (Authority: 1984 PA 431)

CONTRACT FOR PROFESSIONAL ENVIRONMENTAL SERVICES: Indefinite Scope-Indefinite Delivery

THIS CONTRACT, authorized this DATE day of MONTH the year two-thousand and twenty-three (2023), by the Director, Department of Technology, Management and Budget, BETWEEN the STATE OF MICHIGAN acting through the STATE FACILITIES ADMINISTRATION, DESIGN AND CONSTRUCTION DIVISION of the DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET, 3111 W. St. Joseph Street, Lansing, Michigan, 48917, hereinafter called the Department, and

PSC NAME MAILING ADDRESS CITY, STATE, ZIP

the Prime Professional Services Contractor, hereinafter called the

Professional. WHEREAS, the Department proposes securing

professional services for:

Indefinite-Scope, Indefinite-Delivery Contract No. 00XXX

Index No. (To Be Established) Contract Order No. Y (To Be Assigned) File No. (To Be Assigned)

Department of Technology, Management and Budget, State Facilities Administration, Design and Construction Division, Professional Environmental Services Indefinite-Scope, Indefinite-Delivery Contract (ISID) for Minor Projects –

2023 Environmental ISID Services

Various State Departments and Facilities Various Site Locations, Michigan

NOW THEREFORE, the Department and the Professional in consideration of the covenants of this Contract agree as follows:

- I. The Professional shall provide primary environmental investigation/assessment/design/construction oversight services for the assigned projects to the extent authorized by the Department of Technology, Management and Budget State Facilities Administration (SFA), Design and Construction Division (DCD) [The Department] and be solely responsible for such professional services. The Professional's services shall be performed in strict accordance with the assigned Project scope of work.
- II. If authorized, the Professional shall provide environmental services for the identified project types.

Regions								P	rojec	t Тур	es a	nd S	ervic	es O	ffere	d					
Western UP	Eastern UP	Northern LP	Saginaw Bay	Western LP	Central LP	Southwestern LP	Southeastern LP	Regulated Waste Survey/Abatement	Utility Inspection/Cleaning	Nuclear Waste Mgmt./Disposal/Remediation	GPR/LIF Field Screening	Phase I/Phase II/BEA	Well Drilling/Abandonment	Env Investigation/Pilot Tests/Feasibility Study	UST & AST removal/Demolition/Excavation	Remediation Sys Design/O&M/Decommissioning	Vapor Intrusion Mitigation Design and O&M	Ecological RA/Forestry/Wetland/Streams/Lakes	Landfill Maintenance/Monitoring	Brownfield Development	Per-& Polyfluoroalkyl Substances (PFAS) Sampling
X	X	X	X	X	x	X	X	x	X	x	X	X	X	X	X	x	X	X		X	x

NOTE: Blackened box(es) indicate a service that the committee did not select for your firm.

III. The State of Michigan shall compensate the Professional for providing their professional services for the Project in accordance with the conditions of this Professional Services Contract.

IN WITNESS, WHEREOF, each of the parties has caused this Professional Services Contract to be executed by its duly authorized representatives on the dates shown beside their respective signatures, with the Contract to be effective upon the date on which the Professional received a copy executed by the authorized State of Michigan representative(s) by regular, registered, or certified mail or by delivery in person.

FOR THE PROFESSIONAL:

Firm Name	SIGMA Vendor ID Number
Signature	Date
Title	
FOR THE STATE OF MICHIGAN:	
Director, DTMB SFA Design and Construction	Date

WHEREAS, this Professional Services Contract constitutes the entire agreement as to the Project between the parties, any Contract Modification of this Contract and the Department's approved and attached Project/Program Statement scope of work requirements must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the State may require. No Contract Modification may be entered into to compensate the Professional for correcting, or for responding to Professional design claims or litigation for. the firm's final Contract Documents/architectural and engineering design errors, omissions or neglect on the part of the Professional.

ARTICLE I PROFESSIONAL SERVICES SCOPE OF WORK

Provide professional environmental services, technical staff, and support personnel for ISID minor projects on an as-needed basis at various State/Client Agencies within the various site location areas as defined by the State of Michigan.

This Contract is for professional environmental investigation and/or design services for an unspecified number of ISID projects ("Assignment"). The scope of work for each assigned project will be defined at the time the project is awarded by the State to the Professional firm. The professional environmental services required for each of these assigned projects requested by the Department may include any or all of the Tasks included in the Phase 100 – Study through the Phase 900 – Operation and Maintenance Management.

The Professional firm's environmental services shall be performed in strict accordance with this Professional Services Contract and be in compliance with the Department's approved and attached Appendix I– Project/Program Statement.

This Contract does not warrant or imply to the Professional environmental firm, entitlement to perform any specific percentage (%) amount of environmental work during the life of this Contract.

This Contract will remain in effect for **three (3) years** from the date of this Contract award but may be unilaterally terminated by the State of Michigan at any time, for cause or its convenience, by written notification of the State, to the Professional. Furthermore, this Contract may be extended for **one (1) additional year**, at the sole option and discretion of the State upon the Department providing written notice to the Professional prior to the expiration of the original Contract time period. Any such time extension shall be subject to the terms and conditions of this Contract, including, but not limited to, the existing hourly billing rates included in this Contract for the Professional, their Consultant, and their employees or agents.

Please note that the Professional Services Contract ISID Contract No., as noted on page 1, must be provided on all Project correspondence and documents. Also, services are not to be provided or expenses incurred until individual ISID Projects are assigned to this Contract (see the Article II – Compensation and the Appendix 1 – Project/Program Statement).

Upon award of this Contract and each subsequent assignment, the Professional understands and agrees that time is of the essence. Failure to adhere to timely completion will be grounds for the Department, at its sole discretion, to terminate or limit future work under this Contract.

The Professional shall provide all professional services, technical staff, and support personnel necessary to complete the Project as described in its Project/Program Statement, in the best interest of the State, and within the Professional's fee(s) herein authorized by the State. Assigned project services shall comprise, without exception, every professional discipline and expertise necessary to meet all the requirements as described in the Project/Program Statement and in accordance with the accepted industry standards for professional practice and services. The Professional's services include attendance at all Project related meetings and conferences. Professional services for the assigned projects under this contract shall be provided in the Phase/Task sequence shown below and shall be rendered in accordance with the Professional's proposed and approved Project Study, Design, and Proposed Construction Schedule. The Professional's study, design, and proposed construction schedule shall be detailed, undated, and time sequence related for all Phase/Task services appropriate for the Project. The Professional shall field-check and verify the accuracy of all study/drawing and any data furnished by the Department, the State/Client Agency or any other Project related source. The Professional shall not employ or consult with any firms in completing the Professional's obligations herein who it anticipates will be a construction Bidder for the Project or any part thereof, unless specifically authorized, in writing, by the Department.

The Professional acknowledges that the Department is the first interpreter of the Professional's performance under this Contract.

The Professional acknowledges by signing this Professional Services Contract having a clear understanding of the requested professional environmental services required by the Department, and further agrees that the terms and conditions of this Professional Services Contract provide adequate professional fee(s) for the Professional to provide the requested Project scope of work requirements for each assigned project. No increase in compensation to the Professional will be allowed unless there is a material change made to the scope of work of the Assignment/Program Statement and the change is accepted and approved, in writing, by the State. Professional services shall not be performed, and no Project expenses shall be incurred by the Professional prior to the issuance of a written and signed Professional Services Contract and a Contract Order authorizing the Professional to start the Project work. Compensation for Department directed changes to the Project will be provided to the Professional by a Contract Modification and/or Contract Change Order signed by the Department and the Professional. The preparation of Bulletins and Contract Change Orders resulting from changes in the Project scope of work or previously unknown on-site field conditions will be compensated to the Professional, as approved by the Project Director/Agency Project Manager, on an hourly billing rate basis in accordance with this article. This compensation shall not exceed seven and half percent (7.5%) of the Construction Contractor's quotation for the Bulletin or Contract Change Order or an amount mutually agreed upon by the Professional and the Project Director/Agency Project Manager.

The Professional shall immediately inform the Department whenever it is indicated that the Professional's authorized not-to-exceed Budget for any of the assigned Projects may be exceeded. The Professional shall make recommendations to the Department for revisions to be implemented in order to not exceed the original authorized Budget. Any revision to the Project must be accepted and approved by the Department in writing.

The professional services may also include participation in legislative presentations as described in the "Major Project Design Manual for Professional Services Contractors and State/Client Agencies" and as the legislature or the Department may prescribe.

No substitution of any "Key Personnel/Employee" essential for the successful completion of the Project and identified in the Professional's Organizational Chart will be allowed by the Professional for this Contract without the prior written consent from the Project Director/Agency Project Manager. Before any "Key Personnel/Employee" substitution takes place, the Professional shall submit a written request to the Project Director/Agency Project Manager, and this substitution request shall include the following information: (1) A request in writing for a No Cost Contract Modification; (2) Detailed written justification for this substitution; (3) The Professional's qualifications of any proposed "Key Principal Personnel/Employee" replacement; and (4) A written statement from the Professional assuring the Department that the Project scope of work will not be adversely affected by this substitution. This request to modify their Professional Services Contract must be accepted and approved in writing by the Project Director/Agency Project Manager and the Director of the Department.

The Department will designate individuals to serve as the Project Director and Agency Project Manager for the Project scope of work who shall be fully acquainted with the Project/Program Statement and have the authority to render Project decisions and furnish information promptly. Except in connection with issues under the Article XII -Contract Claims and Disputes text, the Project Director/Agency Project Manager will exercise general management and administration for the Professional's services in so far as they affect the interest of the State. The Professional shall indemnify, defend, and hold harmless the State against exposure to claims arising from delays, negligence, or delinquencies by the Professional for the professional services of this Contract.

During the Construction Administration Services Phase of the Project, the Professional is required to complete and submit, the on-site inspection record form, "DTMB-0452, The Professional's Inspection Record," for all on-site inspection visits to the Project site. The Inspection Record shall be completed and signed by the Professional and submitted monthly, with the original document sent to the Project Director/Agency Project Manager and copies sent to the Construction Contractor. The Inspection Record shall accompany the Professional's monthly payment request.

The "DTMB-0460, Project Procedures" contains Department forms which shall be used during the Construction Administration Phase of this Contract. All professional services will be consistent with the Department's current "Major Project Design Manual for Professional Services Contractors and State/Client Agencies" unless otherwise approved in writing by the Department.

The professional services required for each Phase of this Contract shall be performed by the Prime Professional and their Consultants in accordance with service descriptions in this article. The following service descriptions outlined in this Contract represent the Department's standard of care for the Professional's responsibilities for providing the professional services of this Contract; but by inclusion, or omission, the descriptions do not limit or exclude any regular or normal professional services necessary to accomplish the Project in accordance with the approved Project Budget and the industries accepted practice and standards for professional services. All of the services outlined in this Contract may not be applicable to the Project/Program Statement. The Professional shall determine and coordinate the interface of the services required for the Project and is responsible for identifying any additional services necessary to successfully complete the Project.

The professional shall execute the following PHASES upon written authorization from the Project Director.

PHASE 100 - ENVIRONMENTAL INVESTIGATION/STUDY SERVICES

Provide complete and comprehensive Environmental Investigation/Study Deliverables to meet the requirements of the Project/Program Statement. Upon completion of all field investigation, assessment, research, review and/or oversight, prepare a complete report with an executive summary, and in such detail, as the Project Director may prescribe. The services under this phase may include but not be limited to coordination, environmental assessments, drilling, field sampling/oversight, data/document review/management, feasibility study, and reporting as described in the Project/Program Statement. Project reports must be in accordance with Department/Client/Agency requirements and as outlined in the Project/Program Statement but shall include, as a minimum and as appropriate, the following items: (1) Problem; (2) Conclusion; (3) Recommendations; and (4) Discussion, details, and documentation.

PHASE 300-SCHEMATIC DESIGN

Prepare Schematic Design Deliverables consistent with the Project/Program Statement. The deliverables shall consist of conceptual remediation system, drawings, outline specifications, a Schematic Construction Cost Estimate, other related documentation, and shall diagrammatically depict the areas, scales, and relationships of the functions. The services under this phase may include but not be limited to coordination, construction codes and design reviews, civil/site staging investigation, schematic design and utilities review, drafting, and project cost/proposed construction schedule, as required by the Department/Client/Agency and as outlined in the Project/Program Statement. Acceptance of the Schematic Design by the Department/Client/Agency does not limit subsequent inclusion of minor, but essential, schematic or design details whose necessity and arrangement may best become apparent during subsequent Phases of the Project design. Revise design as necessary and obtain approval from the Department/Client/Agency.

PHASE 400-DESIGN DEVELOPMENT

Prepare Design Development Deliverables based on the Owner-accepted Schematic Design to depict the intent of the designed remediation system(s). The deliverables shall consist of draft drawings and specifications, Construction Cost Estimates and other related documentation to clearly establish the complete basis for further detail into final design drawings/specifications. The deliverables shall further define the Project by fixing and describing the Project size, character, site relationships, and other appropriate elements including the environmental, civil, structural, architectural, mechanical, electrical, and safety systems. The services under this phase may include but not be limited to coordination, draft drawings/specifications, site specific staging investigation, structural calculations and preliminary environmental/architectural/engineering design drawings/specifications, development/reviews of as required by the Department/Client/Agency and as outlined in the Project/Program Statement.

PHASE 500-CONSTRUCTION DOCUMENTS AND BIDDING DOCUMENTS

Prepare Construction Documents that revise, refine, amplify, and depict, in detail, the Project. The documents shall set forth, in detail, guality levels of and requirements for the construction, and shall consist of final drawings/specifications that comply with applicable regulatory and construction code requirements, enacted at the time of completion of the one hundred percent (100%) Construction Documents. Prepare Bidding Documents in Phases/Bid packages appropriate to the Project requirements and funding. Incorporate the current edition of DTMB "MICHSPEC", "DCSPEC" or "50KSPEC", as adopted and modified by the State of Michigan. The Construction Documents shall contain all information necessary to bid and construct the Project. The services under this phase may include but not be limited to coordination, final drawings/specifications and bidding documents, civil/site staging design, final structural calculations, final environmental/architectural/engineering design development/reviews of drawings/specifications, construction testing program, hazardous materials, health and safety risks, final design correction procedures, design and construction budget, construction codes/permits and construction schedule, as required by the Department/Client/Agency and as outlined in the Project/Program Statement.

PHASE 600 - CONSTRUCTION ADMINISTRATION - OFFICE SERVICES

Provide all required construction oversight administration and timely professional review and administrative services, as the circumstances of the Construction may require, allowing the successful review/implementation of the Construction Documents into a completed remedial actions/abatement measures and/or for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, review and approval of shop drawings and submittals, reporting of construction progress, construction quality testing, construction contractor performance review, punch list procedures, claims, establishing close-out procedures and developing/review of as-built documents, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

PHASE 700 - CONSTRUCTION ADMINISTRATION - FIELD SERVICES

Provide all required Construction Oversight and Field Services, including timely inspection and professional services, as the circumstances of the Construction may require, allowing the successful review/implementation of the Construction Documents into a completed remedial action/abatement measures and/or for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, field inspections, progress meetings and final project inspection, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

PHASE 900 - OPERATION AND MAINTENANCE SERVICES - REMEDIATION FACILITY

Provide all required Operation and Maintenance (O&M) Services and perform, in a safe and secure environment, all functions, including timely inspection, sampling and professional services, necessary to maintain uninterrupted, effective and efficient facility/system components for the use intended by the Department/Client/Agency. The services under this phase may include but not be limited to coordination, general system operation/inspections, routine system/building/ground maintenance, sampling, spare replacement parts, consumable supplies, utilities. waste materials removal/treatment/disposal, non-routine emergency services, progress meetings and reporting, as required by the Department/Client/Agency requirements and as outlined in the Project/Program Statement.

ARTICLE II COMPENSATION

In consideration of the performance of this Contract, the Department agrees to pay the Professional, as compensation for professional services, an hourly billing rate for each employee providing a direct service to this Project, on a not-to-exceed basis as specified herein, subject to subsequent modifications mutually agreeable to the parties hereto; provided, however, the Professional may not incur costs, or bill the Department, for professional services in excess of the estimates established for this Project without the prior written agreement of the Department. The attached proposal prepared by the Professional in response to the Request for Proposal, by the Owner, may describe methodology, services, schedule, and other aspects of the work to be performed under the Contract but does not supersede the Contract.

Compensation to the Professional shall be on an hourly billing rate basis for professional services rendered by salaried and non-salaried professional, technical, and technical support employees, except for any authorized reimbursable expenses provided for in this Contract. Total compensation for any Phase shall not exceed the amount authorized for that Phase, unless authorized in writing by the Department's approved Contract Change Order. Professional services shall not be performed, and no Project expense shall be incurred by the Professional firm prior to the issuance of a written and signed Professional Services Contract and a DTMB Form 0402 - Contract Order by the Department to the Professional, authorizing the Professional to start the Project.

Compensation to the Professional for services and authorized technical and technical support employees performing a direct service for this Project shall be determined using the Professional firm's billing rates. The Professional firm's hourly billing rate shall be the actual amount paid for the employee services on the Project including fringe benefits, vacations, sick leave, other indirect costs, and profit. The Professional firm's hourly billing rates shall not change during the life of this Contract without written approval by the Department. See attached Appendix, **Overhead Items Allowed for the Professional Services Contractor Firm's Hourly Billing Rate Calculation**, for the guide to overhead items allowed for the professional services contractor firm's hourly billing rate calculation. Reimbursement for the Project/Program Statement scope of work requirements will be provided only for Department approved items authorized for reimbursement compensation in this Contract. The State will not reimburse the Professional for downtime, or for personnel involved in downtime due to mechanical problems or failure of Professional's or Subcontractor equipment.

The preparation of Bulletins and Contract Change Orders resulting from changes to the Project scope of work or previously unknown on-site field conditions will be compensated to the Professional, as approved by the Department on an hourly billing rate basis in accordance with this article. This compensation shall not exceed seven and one- half percent (7.5%) of the Construction Contractor's quotation for the Bulletin or Contract Change Order or an amount mutually agreed upon by the Professional and the Project Director/Agency Project Manager.

The Professional shall provide, but no additional monetary compensation shall be allowed for the services necessary to respond to and resolve all claims arising wholly or in part from the Professional's errors and/or omissions or other aspects of the Project's design or the Professional firm's performance which is inconsistent with the Professional or Construction Contract.

- 2.1 PREMIUM TIME/OVERTIME: This Contract anticipates that no premium or overtime is required to achieve the Project's scope of work. No compensation will be allowed to the Professional for any premium or overtime cost incurred to achieve the Project schedule of this Contract, unless directed in writing by the Project Director/Agency Project Manager and approved by the Department.
- 2.2 EMPLOYEE HOURLY BILLING RATES: Hourly billing rates will include all direct and indirect monetary costs to the State for the Professional's services under this Contract other than the authorized and approved reimbursements. Hourly billing rates shall be based on the Professional's documented historical operating expenses and adjusted for Project specific costs. In no case shall this documentation period include more than eighteen (18) months prior to the date of award of this Contract.

Lump-sum payments to employees are not allowed under this Contract. Billing rates for employees who perform professional services of a subordinate or of a position classification having a lower classification/pay range shall be accounted and paid for at the lower hourly billing pay rate. The hourly billing rate charge of any employee may be changed by the Professional with a written and Department approved Contract Modification to account for normal personnel pay increases. Hourly billing rates include, but are not limited to: Overhead items such as employee fringe benefits, vacations, sick leave, insurance, taxes, pension funds, retirement plans, meals, lodging, and all Project related travel expenses for Projects <u>less than</u> one-hundred (100) miles in each direction from the Professional's nearest Michigan office, computer costs/operating costs, data entry, and time, telephone, telephone- related services, and all reproduction services (except Contract Bidding Documents/Deliverables).

The hourly billing rate also includes all reproduction costs for design interpretations, study/design clarifications and Bulletins related to design errors or omissions, construction code compliance (precipitating either from design code compliance and plan review, design interpretations, or construction on-site/field inspections), and all similar, or avoidable costs.

All incidental postage, mail, or other shipping or delivery services, acquisition, bad debts, previous business losses, employment fees, depreciation, and operating costs for equipment, including computer design and/or computer drafting systems, and any specialized testing equipment are to be included. The hourly billina rate shall include. without exception, secretarial. computer/typing/word processing, editing, and clerical services utilized in any way for the Project as well as other non-technical and/or employees providing indirect services. The hourly billing rate also includes all profit without regard to its form or distribution.

Items not allowable as part of the Professional's calculated hourly billing rate include but are not limited to: Any costs associated with litigation and settlements for the Professional, other liability suits, out-of-state offices and associated travel, bonuses, profit sharing, premium/overtime costs, public relations, entertainment, business promotion, contributions, and various speculative allowances.

The hourly billing rate for the Professional may not be applied to the work of the Professional's Sub- Consultant's staff. Each Sub-Consultant firm must submit a separate hourly billing rate with proper documentation for Sub-Consultant services provided as part of the Proposal. The hourly billing rate of the respective Consultant firm shall be used for that Consultant firm's personnel only. No mark-up to Consultant firm's charges will be allowed.

2.3 RANGE OF EMPLOYEE HOURLY BILLING RATES: The Professional shall identify the service being provided and include the Professional's or Consultant's employee(s) full names and position classifications for the Project and their current hourly billing rates at the beginning and at the anticipated end of the Project. This hourly billing rate range shall reflect any anticipated pay increases over the life of the Contract. The range of hourly billing rates for any employee position or classification may not be changed without an approved Contract Modification.

2.4 DIRECT COST REIMBURSEMENT ITEMS: The Professional's Consultant services and authorized reimbursable expenses shall be treated as an authorized reimbursable expense item at a direct cost. The Professional shall be responsible for the selection of the supplier of the professional services or materials; the coordination, adequacy, and application of the professional services, whether provided by the Professional's staff or provided by their Consultant, and any Project costs that exceed the budget for each Phase.

Project related travel expenses (mileage, meals, lodging) for Projects **more than** onehundred (100) miles in one- way from the Professional's nearest office shall be treated as an authorized reimbursable expense at the State of Michigan's current travel rates.

Unless authorized elsewhere in this Contract, direct cost reimbursement items shall be limited to the actual cost of printing and reproduction of project deliverables such as Final Study Reports, Surveys, Bidding Documents, and U. S. Mail regular shipping postage of the project deliverables listed above. In addition, direct cost reimbursement items may include soil borings, site surveys and any required laboratory testing, Design Code Compliance and Plan Review Approval Fees by the licensing agency; reproduction of documents for legislative presentation, artistic productions, mobilization of testing equipment, laboratory costs for testing samples, per-linear-foot cost of soil borings and specialized inspections of the structural, mechanical, electrical, chemical or other essential components of the Project.

Compensation for this Contract shall not exceed the budget per Project Phase identified in the attached Contract Order unless authorized by a Department approved Contract Modification. It shall be the Professional's responsibility to carefully monitor Project costs, activities, and progress and to provide the Project Director/Agency Project Manager timely notification of any justifiable need to increase the authorized budget. The Professional may not proceed with professional services that have not been authorized by the Project Director/Agency Project Manager and shall immediately notify the Project Director/Agency Project Manager if such services have been requested or have become necessary.

Professional/Sub-Consultant staff and hourly billable rates are identified in the attached Professional's proposal.

ARTICLE III PAYMENTS

Payment for the professional services shall be based on the Professional's performance of authorized professional service(s) performed prior to the date of each submitted payment request. Payment requests shall be submitted monthly to the Project Director/Agency Project Manager on a payment request form (DTMB-440). Payment for each monthly submitted payment request shall be made within thirty (30) consecutive calendar days following the Department's approval of the payment request. Payment requests shall include signed certification by the Professional of the actual percentage of work completed as of the date of invoicing for each Phase and summarize the amounts authorized, earned, previously paid, and currently due for each Project Phase. Payment requests shall be supported by itemized records or documentation in such form and detail as the Department may require.

Each of the Professional's Consultant's submitted payment request applications shall include similar information. This includes, but is not limited to:

- Phase Numbers for the professional services provided.
- Professional's personnel and position/classification providing service and hours worked. Current hourly billing rate charges for each individual position/classification.
- Copy of certified on-site visitation log or site visit report showing time on-site.
- Itemized invoices from each of the Professional's Consultant's documenting that firm's professional services charge and the Project work related services provided.
- Authorized reimbursable expense items provided with receipts and invoices.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify the Professional of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to the Professional's continuing obligations, including claims for deficiencies or substandard Contract Activities. The Professional's acceptance of final payment by the State constitutes a waiver of all claims by the Professional against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under the Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <u>http://www.michigan.gov/SIGMAVSS</u> to receive electronic funds transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy if may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract

ARTICLE IV ACCOUNTING

The Professional shall keep current and accurate records of Project costs and expenses, hourly billing rates, authorized reimbursable expense items, and all other Project related accounting documents to support the Professional's monthly application for payment. Project records shall be kept on a generally recognized accounting basis. Such records shall be available to the Department for a period of ten (10) years after the Department's final payment to the Professional. The State of Michigan reserves the right to conduct, or have conducted, an audit and inspection of these Project records at any time during the Project or following its completion.

ARTICLE V INSURANCE

The Professional shall purchase, maintain and require such insurance that will provide protection from claims set forth below which may arise out of or result from the Professional firm's services under this Contract, whether such service is performed by the Professional or performed by any of the Professional firm's Consultant's or by anyone directly or indirectly employed by them, or by anyone for whose acts they may be liable. The following insurance policy limits described below are intended to be the minimum coverage acceptable by the State:

For the purpose of this Section, "State" includes its departments, divisions, agencies, offices, commissions, officers, employees, and agents.

- (a) The Contractor must provide proof that it has obtained the minimum levels of insurance coverage indicated or required by law, whichever is greater. The insurance must protect the State from claims that may arise out of or result from or are alleged to arise out of or result from the Contractor's or a Subcontractor's performance, including any person directly or indirectly employed by the Contractor or a Subcontractor, or any person for whose acts the Contractor or a Subcontractor may be liable.
- (b) The Contractor waives all rights against the State for the recovery of damages that are covered by the insurance policies the Contractor is required to maintain under this Section. The Contractor's failure to obtain and maintain the required insurance will not limit this waiver.
- (c) All insurance coverage provided relative to this Contract is primary and noncontributing to any comparable liability insurance (including self-insurance) carried by the State.
- (d) The State, in its sole discretion, may approve the use of a fully-funded selfinsurance program in place of any specified insurance identified in this Section.
- (e) Unless the State approves, any insurer must have an A.M. Best rating of "A" or better and a financial size of VII or better, or if those ratings are not available, a comparable rating from an insurance rating agency approved by the State. All policies of insurance must be issued by companies that have been approved to do business in the State. To view the latest A.M. Best's Key Ratings Guide and the A.M. Best's Company Reports (which include the A.M. Best's Ratings) visit the A.M. Best Company internet web site at <u>http://www.ambest.com</u>.
- (f) Where specific coverage limits are listed in this Section, they represent the minimum acceptable limits. If the Contractor's policy contains higher limits, the State is entitled to coverage to the extent of the higher limits.

- (g) The Contractor must maintain all required insurance coverage throughout the term of this Contract and any extensions. However, in the case of claims-made Commercial General Liability policies, the Contractor must secure tail coverage for at least three (3) years following the termination of this Contract.
- (h) The minimum limits of coverage specified are not intended and may not be construed; to limit any liability or indemnity of the Contractor to any indemnified party or other persons.
- (i) The Contractor is responsible for the payment of all deductibles.
- (j) If the Contractor fails to pay any premium for a required insurance policy, or if any insurer cancels or significantly reduces any required insurance without the State's approval, the State may, after giving the Contractor at least 30 days' notice, pay the premium or procure similar insurance coverage from another company or companies. The State may deduct any part of the cost from any payment due the Contractor or require the Contractor to pay that cost upon demand.
- (k) In the event the State approves the representation of the State by the insurer's attorney, the attorney may be required to be designated as a Special Assistant Attorney General by the Michigan Attorney General.

The Professional firm's Errors and Omissions coverage shall include coverage for claims resulting from acts of forbearance that cause or exacerbate pollution and claims of bodily injury and property damage in the amount of \$1,000,000 minimum coverage per occurrence, \$3,000,000 annual aggregate. This insurance is required of all professional firms who conduct professional environmental services including, but not limited to, any of the following services:

- (i) Remedial System Design.
- (ii) Remediation Management.
- (iii) Feasibility Development and Implementation.
- (iv) Hydrogeological Evaluation.
- (v) Media Testing and Analysis.
- (vi) Subsurface and Geophysical Investigation.
- (vii) Other related activities as determined by the Department.

Required Limits	Additional Requirements	
Commercial General L	iability Insurance	
Minimum Limits: \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations	Professional must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 20 10 12 19 and CG 20 37 12 19.	
Umbrella or Excess	Liability Insurance	
<u>Minimum Limits:</u> \$2,000,000 General Aggregate	Professional must have their policy follow form.	
Automobile Liabil	lity Insurance	
Minimum Limits: \$1,000,000 Per Accident	Professional must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.	
Workers' Compensa	ation Insurance	
Minimum Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.	
Employers Liabil	ity Insurance	
<u>Minimum Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.		
Professional Liability (Er Insurar	rors and Omissions)	
Minimum Limits: \$1,000,000 Each Occurrence \$2,000,000 Annual Aggregate <u>Deductible Maximum:</u> \$50,000 Per Loss		

	Environmental and Pollution Liability (Errors and Omissions) ***							
	<u>Minimum Limits:</u> \$1,000,000 Each Occurrence \$2,000,000 Annual Aggregate	Professional must have their policy: (1) be applicable to the work being performed, including completed operations equal to or exceeding statute of repose; (2) not have exclusions or limitations related to Transportation (upset overturn, spills during loading or unloading, Hazardous Materials Handling, and Non-Owned disposal site liability; and (3) endorsed to add "the State of Michigan, its departments, division, agencies, offices, commissions, officers, employees, and agents" as additional insured.						
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Contractual Liability insurance for claims for damages that may arise from the Professional's assumption of liability on behalf of the State under Article VI concerning indemnification for errors, omissions, or negligent acts in the course of the professional service or other provision within this Contract to the extent that such kinds of contractual liability are insurable in connection with and subject to limits of liability not less than for the general liability insurance and the professional liability insurance and set forth in subsections (c) and (d) above.

Except where the State has approved a subcontract with other insurance provisions, the Professional must require any Consultant/Subcontractor to purchase and maintain the insurance coverage required in this Article. Alternatively, the Contractor may include a Consultant/Subcontractor under the Professional's insurance on the coverage required in that Section. The failure of a Consultant/Subcontractor to comply with insurance requirements does not limit the Professional's liability or responsibility.

Certificate of Insurance documents, acceptable to the State, shall be provided and filed with the Department prior to commencement of the Professional's Project services, unless otherwise approved in writing, and not less than 20 days before the insurance expiration date every year thereafter. Facsimile copies of the Certificate of Insurance will not be accepted. Certificate of Insurance documents must be either submitted hard copy or portable document file (.pdf). The Certificate of Insurance documents must specify on the certificate in the oblong rectangle space labeled "Description of Operations/Locations/Vehicles/Exclusions Added By Endorsement/Special Provisions/Special Items" the following items: (1) The ISID Title; (2) The ISID Contract Number; and (3) The State of Michigan must be named as an "Additional Insured on the General Liability and Automobile Insurance Policy." The Certificate of Insurance documents shall contain a provision that the Project insurance coverage afforded under the insurance policies for this Contract will not be modified or canceled without at least thirty (30) consecutive calendar days prior written notice, except for 10 days for non-payment of premium, to the State of Michigan, Department.

This Section is not intended to and is not to be construed in any manner as waiving, restricting, or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Professional to indemnify, defend and hold harmless the State).

The attached, Certificates of Insurance documents required for this Project shall be in force for this Project until the final payment by the State to the Professional is made and shall be written for not less than any limits of liability specified above. The Professional has the responsibility for having their consultant firms comply with these insurance requirements.

ARTICLE VI

- (a) To the extent permitted by law, the Professional shall indemnify, defend and hold harmless the State from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest, and penalties), accruing or resulting to any person, firm or corporation that may be injured or damaged by the Professional in the performance of this Contract and that are attributable to the negligence or tortious acts of the Professional or any of its Subcontractors/Consultants, or by anyone else for whose acts any of them may be liable.
- (b) Employee Indemnification: In any and all claims against the State of Michigan, its departments, divisions, agencies, boards, sections, commissions, officers, employees and agents, by any employee of the Professional or any of its Subcontractors/Consultants, the indemnification obligation under this Contract shall not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Professional or any of its Subcontractors/Consultants under worker's disability compensation acts, disability benefit acts or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in provisions, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other provisions.
- (c) Patent/Copyright Infringement Indemnification: To the extent permitted by law, the Professional shall indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest, and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Professional or its Subcontractors/Consultants, or the operation of such equipment, software, commodity or service, or the use of reproduction of any documentation provided with such equipment, software, commodity or service infringes any United States patent, copyright, trademark or trade secret of any person or entity, which is enforceable under the laws of the United States.

In addition, should the equipment, software, commodity, or services, or its operation, become or in the State's or Professional's opinion be likely to become the subject of a claim of infringement, the Professional shall at the Professional's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the Professional, (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to Professional, (iii) accept its return by the State with appropriate credits to the State against the Professional's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

Notwithstanding the foregoing, the Professional shall have no obligation to indemnify or defend the State for, or to pay any costs, damages or attorneys' fees related to, any claim based upon (i) equipment developed based on written specifications of the State; or (ii) use of the equipment in a configuration other than implemented or approved in writing by the Professional, including, but not limited to, any modification of the equipment by the State; or (iii) the combination, operation, or use of the equipment with equipment or software not supplied by the Professional under this Contract.

ARTICLE VII OWNERSHIP OF DOCUMENTS

All Project deliverables, including but not limited to: reports, Bidding Documents, Contract Documents, electronic documents and data, and other Project related documents, including the copyrights, prepared and furnished by the Professional shall become the property of the State of Michigan upon completion of the Project, completion and acceptance of the professional's work, or upon termination of the Contract. Project deliverables shall be delivered to the Department upon their request. The Professional shall have no claim for further employment or additional compensation as a result of this Contract requirement. The Professional may retain a copy of all Project documents for their files.

If the Professional is in default or breach of its obligations under this Contract, the State shall have full ownership rights of the Project deliverables, including Bidding Documents and Contract Documents, including all electronic data. If the Professional is in default or this Contract Agreement is terminated, the State shall not use the Contract Documents and deliverables of this Contract for completion of the Project by others without the involvement of other qualified Professionals who shall assume the professional obligations and liability for the Project work not completed by the Professional.

To the fullest extent allowed by law, the State releases the Professional, the Professionals Consultant(s) and the agents and employees of any of them from and against legal claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of the State's use of the Contract Documents other than in accordance with this Contract Agreement.

All Contract deliverables listed may be published or issued for informational purposes without additional compensation to the Professional. The Professional may not use any of the Contract Documents and Contract deliverables for any purpose that may misrepresent the professional services they provided.

The Professional shall retain full rights to the Contract Documents and deliverables and the right to reuse component information contained in them in the normal course of the Professional's professional activities.

The Contract deliverables, Contract Documents, or other documents produced under this Contract may be used by the Department, or others employed by the Department or State of Michigan, for reference in any completion, correction, remodeling, renovation, reconstruction, alteration, modification of or addition to the Project, without monetary compensation to the Professional.

The State of Michigan will not construct additional Projects or buildings based on the work of this Contract without notice to the Professional. Whenever renderings, photographs of renderings, photographs or models, or photographs of the Project are released by the State of Michigan for publicity, proper credit for design shall be given to the Professional, provided the giving of such credit is without cost to the State of Michigan.

ARTICLE VIII TERMINATION

The State may, by written notice to the Professional, terminate this Contract and/or any Assignments, in whole or in part at any time, either for the State's convenience or because of the failure of the Professional to fulfill their Contract obligations. Upon receipt of such notice, the Professional shall:

- a) Immediately discontinue all professional services affected (unless the notice directs otherwise), and
- b) Deliver to the State all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the Professional in performing this Contract, whether completed or in process.
- 8.1 If the termination is for the convenience of the State, an equitable adjustment in the Contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed professional services.
- 8.2 If the termination is due to the failure of the Professional to fulfill their Contract obligations, the State may take over the work and prosecute the same to completion by Contract or otherwise. In such case, the Professional shall be liable to the State for any additional cost occasioned to the State thereby.

- 8.3 If, after notice of termination for failure to fulfill Contract obligations, it is determined that the Professional had not so failed, the termination shall be deemed to have been affected for the convenience of the State. In such event, adjustment in the Contract price shall be made as provided in Section 8.1 of this article.
- 8.4 The rights and remedies of the State provided in this article are in addition to any other rights and remedies provided by law or under this Contract.

ARTICLE IX SUCCESSORS AND ASSIGNS

This Contract shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns; provided, however, that neither of the parties hereto shall assign this Contract without the prior written consent of the other.

ARTICLE X GOVERNING LAWS

This Contract shall be construed in accordance with the current laws of the State of Michigan. Some Assignments to this Contract will be funded wholly or in part by the Federal Government through grant agreements and/or federal programs. The Professional must comply with such funding requirements along with any current applicable federal regulations in performing the tasks described in the Scope of Work, including but not limited to the following current federal regulations. The absence of reference to any law or regulation does not preclude its applicability to this Contract.

- 1. The Comprehensive Environmental Response Compensation and Liability Act of 1980 as amended CERCLA (The Superfund Act);
- 2. Section 306 of the Clean Air Act (42 U.S.C. 1857 (h));
- 3. Section 508 of the Clean Water Act (33 U.S.C. 1368);
- 4. Public Law 98-473 as implemented in the Department of the Interior, Bureau of Indian Affairs;
- 5. Executive Order 11738; Office of Management and Budget Circular A-87, "Cost Principles for State, Local, and Indian Tribal Governments."
- 6. 25 CFR Part 20; Financial Assistance and Social Services Programs
- 7. 40 CFR Part 31; Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
- 8. 40 CFR Part 32 Subpart F; Drug-Free Workplace
- 9. 40 CFR Part 33; Participation by Disadvantaged Business Enterprises in United States Environmental Protection Agency Programs
- 10. 40 CFR Part 35; State and Local Assistance

- 11. 40 CFR Part 35 Subpart 0; Cooperative Agreements and Superfund State Contracts for Superfund Response Actions
- 12. 48 CFR Chapter 1 Part 31 Subpart 31.2; Contracts with Commercial Organizations.

ARTICLE XI NONDISCRIMINATION

In connection with the performance of the Project under this, the Professional agrees as follows:

a) The Professional will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position. The Professional will provide equal employment opportunities to ensure that applicants are employed and that employees are treated during employment, without regard to their race, color, religion, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position.

Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

- b) The Professional will, in all solicitations or advertisements for employees placed by or on behalf of the Professional, state that all qualified applicants will receive equal employment opportunity consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status, or a physical or mental disability that is unrelated to the individual's ability to perform the duties of the particular job or position.
- c) The Professional or their collective bargaining representative will send to each labor union or representative of workers with which is held a collective bargaining agreement or other Contract or understanding, a notice advising the said labor union or workers' representative of the Professional's nondiscrimination commitments under this article.
- d) The Professional will comply with the Elliot-Larsen Civil Rights Act, 1976 PA 453, as amended, MCL 37.2201 et seq; the Michigan Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended, MCL 37.1101 et seq; *Executive Directive 2019-09*; and all published rules, regulations, directives and orders of the Michigan Civil Rights Commission which may be in effect on or before the date of award of this Contract.
- e) The Professional will furnish and file nondiscrimination compliance reports within such time and upon such forms as provided by the Michigan Civil Rights

Commission; said forms may also elicit information as to the practices, policies, program, and employment statistics of the Professional and of each of their Consultant firms. The Professional will permit access to all books, records, and accounts by the Michigan Civil Rights Commission, and/or its agent, for purposes of investigation to ascertain nondiscrimination compliance with this Contract and with rules, regulations, and orders of the Michigan Civil Rights Commission relevant to Article 6, 1976 PA 453, as amended.

f) In the event that the Michigan Civil Rights Commission finds, after a hearing held pursuant to its rules, that the Professional has not complied with the contractual nondiscrimination obligations under this Contract, the Michigan Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the State Administrative Board of the State of Michigan, which the State Administrative Board may order the cancellation of the Contract found to have been violated, and/or declare the Professional ineligible for future Contracts with the State and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the Professional complies with said order of the Michigan Civil Rights Commission.

Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the Professional is declared ineligible to Contract as a contracting party in future Contracts. In any case before the Michigan Civil Rights Commission in which cancellation of an existing Contract is a possibility, the State shall be notified of such possible remedy and shall be given the option by the Michigan Civil Rights Commission to participate in such proceedings.

- g) The Professional shall also comply with the nondiscrimination provisions of 1976 PA 220, as amended, concerning the civil rights of persons with physical or mental disabilities.
- h) The Professional will include, or incorporate by reference, the nondiscrimination provisions of the foregoing paragraphs a) through g) in every subcontract or Contract Order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or Contract Order that said nondiscrimination provisions will be binding upon each of the Professional's Consultant's or seller.

ARTICLE XII CONTRACT CLAIMS AND DISPUTES

In any claim or dispute by the Professional which cannot be resolved by negotiation, the Professional shall submit the claim or dispute for an administrative decision by the Department of Technology, Management and Budget, Director of State Facilities Administration within thirty (30) consecutive calendar days of the end of the disputed negotiations, and any decision of the Director of State Facilities Administration may be appealed to the Michigan Court of Claims within one (1) year of the issuance of the Director's decision.

The Professional agrees that the Department's appeal procedure to the Director of State Facilities Administration is a prerequisite to filing a suit in the Michigan Court of Claims.

ARTICLE XIII DEFINITION OF TERMS

The definition of terms and conditions of this Contract are described and outlined in the following Articles I through XIV and attached appendices. The capitalized defined terms used in this Professional Services Contract shall have the following definitions:

ADDENDA: Written or graphic numbered documents issued by the Department and/or the Professional prior to the execution of the Construction Contract which modify or interpret the Project Bidding Documents, including drawings, and specifications, by additions, deletions, clarifications or corrections. The Addenda shall: (1) Be identified specifically with a standardized format; (2) Be sequentially numbered; (3) Include the name of the Project; (4) Specify the Project Index No., Project File No., the Contract Order No. Y, and a description of the proposed Addenda; and (5) Specify the date of Addenda issuance. As such, the Addenda are intended to become part of the Project Contract Documents when the Construction Contract is executed by the Professional's recommended lowest responsive, responsible qualified Construction Contractor.

An Addendum issued after the competitive construction Bid opening to those construction Bidders who actually submitted a Bid, for the purpose of rebidding the Project work without re-advertising, is referred to as a post-Bid Addendum.

AGENCY PROJECT MANAGER: The assigned staff of the Department or the State/client Agency authorized by the State to represent and act on behalf of the Project Director on a given Project and to thereby provide direction and assistance to the Construction Contractor. The Agency Project Manager may designate in writing a person to act on behalf of the Agency Project Manager when they are unable to perform their required duties or is away from the office. In such cases, the Agency Project Manager must notify the Construction Contractor and the Project Director.

AGENCY FIELD INSPECTOR: An employee of the State of Michigan under the direction of the State/client Agency who provides the on-site, Inspection of construction Projects for compliance with the study/design intent of the Professional firm's Contract Documents/drawings and specification requirements and the building construction codes. The Agency Field Inspector is the liaison between the Construction Contractor, the Professional, and the Agency Project Manager. The Agency Project Manager, or their Agency Field Inspector, has the authority to require the Professional to respond to and resolve study/design related problems, construction on-site field problems and to attend Project related meetings.

BID: A written offer by a construction Bidder for the Department. Project construction work, as specified, which designates the construction Bidder's base Bid and Bid price for all alternates.

BIDDER: The person acting directly, or through an authorized representative, who submits a competitive construction Bid directly to the Department.

BIDDING DOCUMENTS: The Professional's Project Contract Documents as advertised, and all Addenda issued before the construction Bid opening, and after the construction Bid opening, if the Project construction work is rebid without re-advertising. Bidding Documents shall consist of the Phase 500 - Final Design drawings and specifications, any Addenda issued, special, general, and supplemental conditions of the Construction Contract, and modifications, if any, to standard forms provided by the Department. Such forms consist of the Project advertisement, the instructions to Bidders, the proposal forms, general, supplemental, and any special conditions of the Construction Contract, and the form of agreement between the Department and the Construction Contract for the Project work requirements.

BID SECURITY: The monetary security serving as guarantee that the Bidder will execute the offered Construction Contract or as liquidated damages in the event of failure or refusal to execute the Construction Contract.

BUDGET: The maximum legislatively authorized Budget amount to be provided by the State of Michigan and available for a specific purpose or combination of purposes to accomplish the Project for this Contract.

BULLETIN: A standard document form (DTMB-0485, Bulletin Authorization No. and the DTMB-0489, Instructions to Construction Contractors for Preparation of Bulletin Cost Quotations for Contract Change Orders) used by the Department to describe a sequentially numbered change in the Project under consideration by the Department and the Professional and to request the Construction Contractor to submit a proposal for the corresponding adjustment in the Contract price and/or Contract time, if any. These standard document forms are a part of the "DTMB-0460, Project Procedures" documents package.

CONSTRUCTION CONTRACT: A separate written Contract agreement between the Construction Contractor and the Department for the construction, alteration, demolition, repair, or rebuilding of a State/Client Agency building or other State property.

CONSTRUCTION CONTRACTOR: Any construction firm under a separate Contract to the Department for construction services.

CONSTRUCTION INSPECTION SERVICES: The Professional's field Inspections of the Project during the construction Phase of this Contract which includes but is not limited to: (1) Documenting the quantity and quality of all Project construction work and verifying that the Project construction work is properly completed; (2) Resolve Project problems that are affecting the Project construction work, certify payment requests, process Bulletins, Contract Change Order recommendations, and requests for information (RFI's) in a timely manner as prescribed in the Department's, "MICHSPEC 2001 Edition of The Owner and Contractor Standard Construction Contract and General Conditions for Construction (Long Form)" or the current Department, DTMB Short Form 401 - Proposal and Contract/Front-End Package for Small Projects for Professional Services Contractors (PSC) with General Conditions for Construction and Instructions to Bidders" as adopted and modified by the State of Michigan and incorporated into the Construction Contract; and the (3) Inspection of Project construction work completed or in progress by the Construction Contractor to determine and verify to the Department's Project

Director/Agency Project Manager and their Department Field Representative that the Project construction work is in compliance with the Professional's design intent and that the Project has been completed by the Construction Contractor in accordance with the Professional's Phase 500 - Contract Documents/drawings and specifications requirements.

The Professional shall provide sufficient Inspections of the Project during the construction Phase to administer the construction Phase field and office services as directly related to the degree of Project complexity, up to and including full-time field Inspections. Construction field Inspections shall occur as the construction field conditions and the Project may require and during the regularly scheduled monthly progress and payment meetings.

The Professional shall use for their construction field Inspection services, only personnel having professional expertise, experience, authority, and compatibility with departmental procedures as the Department may approve. The Professional agrees that such characteristics are essential for the successful completion of the Project. Such individuals shall be replaced for cause where the Department determines and notifies the Professional, in writing, of their unacceptable performance.

CONSULTANT: Any individual, firm, or employee thereof, not a part of the Professional's staff, but employed by the Professional and whose professional service cost is ultimately paid by the State of Michigan, either as a direct cost or authorized reimbursement. This includes the recipient(s) of Contract Orders for material, support, and/or technical services. Also, included are persons and firms whose management and/or direction of services are assigned to the Prime Professional as may be provided elsewhere in this Contract.

CONTRACT CHANGE ORDER: A standard document form (DTMB-0403) issued and signed by the State of Michigan and signed by the Professional which amends the Project Design Professional's Contract Documents for changes in the Project/Program Statement or an adjustment in Contract price and/or Contract time, or both.

CONTRACT DOCUMENTS: The Professional's Phase 100 – Study, Final Report and Phase 500 - Final Design plans/drawings, specifications, Construction Contract, instructions to construction Bidders, proposal, Bidding Documents, agreement, conditions of the Contract, payment bond, performance/labor and material bond, prevailing wages, all Addenda, and attachments as may be necessary to comprise a Construction Contract for the Project. Specifications for this Contract will be prepared for Division 00 through 49, in the current version MasterFormat Outline by the Construction Specifications Institute (C.S.I.), as appropriate for the Project.

CONTRACT MODIFICATION: A form (DTMB-0410) amending the Contract signed by the Department and the Professional. The preparation of Bulletins and Contract Change Orders resulting from changes in the Project/Program Statement or previously unknown on-site field conditions as approved by the Department will be compensated to the Professional by way of the Contract Modification in accordance with the Article II, Compensation text of this Contract. Any Contract Modification of this Professional Services Contract must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the Department may require. No Contract Modification will be approved to compensate the Professional for correcting, or for responding to claims or litigation for, the Professional's Phase 100 – Study, Final Report and Phase 500 - Contract Documents study/design errors, omissions or neglect on the part of the Professional.

CONTRACT ORDER: A form (DTMB-0402) issued and signed by the State of Michigan authorizing a Professional to: (1) Begin to incur Project expenses and proceed with the Project on-site; and (2) Provide professional services for the fee amount designated in the Phases of the Contract Order. Issuance of the DTMB-0402 certifies that: (1) The State will enter into a Professional Services Contract for the professional services described in the various Phases of this Contract; and that (2) The proper three (3) sets of Certificate of Insurance documents have been received and accepted by the State along with the approval and signing of the Professional's Professional Services Contract by the SFA, DCD Director.

DEPARTMENT: The Department of Technology, Management and Budget, Facilities and Business Administration, Design and Construction Division. The Department will represent the State of Michigan in all matters pertaining to this Project. This Professional Services Contract will be administered through the Department on behalf of the State of Michigan and The State/Client Agency.

DESIGN MANUAL: Provides the Professional with information regarding the Department's current "Major Project Design Manual for Professional Services Contractors and State/Client Agencies" review process requirements regarding the uniformity in Contract materials presented to it by the Professional and the State/Client Agency(ies). This manual contains the following noted standards, instructions, and procedures information for: (1) General instructions for planning documents from Phase 100-Study through Phase 500-Final Design; (2) Net and gross area/volume; (3) Project cost format; (4) Outline architectural and engineering specifications; (5) Specifications in documentation Phase; (6) Instructions for proposal; (7) Bidders questionnaire; and the (8) Project job sign.

DIRECTOR: The Director of the Department of Technology, Management and Budget or their authorized State of Michigan representative.

DIRECTOR-SFA: The Director of the Department of Technology, Management and Budget, State Facilities Administration or their authorized State of Michigan representative.

DEPARTMENT FIELD REPRESENTATIVE: An employee of the State under the direction of the Department who provides the Inspection of construction Projects for compliance with the design intent of the Professional's Phase 500 - Contract Documents/ architectural and/or engineering drawings and specification requirements and the building construction codes. The Department Field Representative is the liaison between the Construction Contractor, the Professional, and the Project Director/Agency Project Manager. The Project Director/Agency Project Manager, or their Department Field Representative, has the authority to require the Professional to respond to and resolve study/design related problems, construction field problems and to attend Project
meetings. Unless delegated by specific written notice from the Department, the Department Field Representative has no authority to order any changes in the Project scope of work or authorize any adjustments in Contract price or Contract time.

INSPECTION: The Professional and their Consultant firm's on-site and/or off-site examination of the Project construction work completed or in progress by the Construction Contractor to determine and verify to the Department's, Project Director/Agency Project Manager and their Department Field Representative that the quantity and quality of all Project construction work is in accordance with the design intent of the Professional's Phase 500 - Contract Documents/ drawings and specifications requirements.

KEY PRINCIPAL PERSONNEL/EMPLOYEE: An individual employee of a Professional who is essential for the successful completion of the Project.

NOTICE OF INTENT TO AWARD: A written notice to the Construction Contractor, by the Department accepting the Professional's written recommendation to award the construction Bid to the lowest responsive, responsible qualified construction Bidder. The Notice of Intent to Award letter will also designate the Contract price and itemize the alternates that the Department, at its sole discretion has accepted.

PHASE: A discretely distinguishable step necessary to produce the Project in the course of the Professional providing study, design and construction administration services.

PRIME PROFESSIONAL SERVICES CONTRACTOR/PROFESSIONAL: An individual, firm, partnership, corporation, association, or other legal entity who is legally permitted by law to sign and seal final design construction Contract Documents and licensed under the State of Michigan's professional licensing and regulation provisions of the Occupational Code (State Licensing Law), Act 299 of the Public Acts of 1980, Article 20, as amended, to practice architecture, engineering, environmental engineering, geology, civil, land surveying, or landscape architecture services in the State of Michigan.

The Prime Professional Services Contractor/Professional is also legally permitted by the State of Michigan's regulation provisions of the State Construction Code, Act 230 of the Public Acts of 1972, as amended, and designated in a Construction Contract by the Department to recommend construction progress payments to the Construction Contractor.

PROJECT: Any new construction, existing site, new utilities, existing building renovation, roof repairs and/or removal and replacement, additions, alteration, repair, installation, construction quality control and material testing services, painting, decorating, demolition, conditioning, reconditioning or improvement of public buildings, works, bridges, highways or roads authorized by the Department that requires professional study/design services as part of this Contract.

PROJECT COST: The total Project cost including, but not limited to, site purchase, site survey and investigation, hazardous material abatement, construction, site development, new utilities, telecommunications (voice and data), professional fees, construction quality control and material testing services, testing and balancing services, furnishings, equipment, plan(s)/drawing(s) design code compliance and plan review approval fees and all other costs associated with the Project.

PROJECT DIRECTOR: The professional licensed employee of the Department who is responsible for directing and supervising the Professional's services during the life of this Contract. The Project Director, or their Department Field Representative, has the authority to require the Professional to respond to and resolve study/design related problems, construction field problems and to attend Project related meetings.

PROJECT/PROGRAM STATEMENT: The Project/Program Statement is provided by the Department and defines the scope of the problem, describes why this Project is desirable, and provides a preferred resolution of the problem.

PROJECT TEAM: The Professional, the Project Director/Agency Project Manager, Department Field Representative, a representative of the State/Client Agency, and others as considered appropriate by the Department.

PUNCH LIST: A list of minor construction Project items to be completed or corrected by the Construction Contractor, any one of which do not materially impair the use of the Project work, or the portion of the Project work inspected, for its intended purpose. A Punch List shall be prepared by the Professional upon having made a determination that the Project work, or a portion of the Project construction work inspected, in concert with the Professional, the Construction Contractor, the Department, the Project Director/Agency Project Manager and their Department Field Representative, and any construction manager, is substantially complete and shall be attached to the respective DTMB-0455, Certificate of Substantial Completion form. This standard document form is a part of the "DTMB-0460, Project Procedures" documents package.

SOIL EROSION AND SEDIMENTATION CONTROL: The planning, design and installation of appropriate Best Management Practices (as defined by the most current version of the Department's Soil Erosion and Sedimentation Control Guidebook) designed and engineered specifically to reduce or eliminate the off-site migration of soils via water runoff, wind, vehicle tracking, etc. and comply with the Soil Erosion and Sedimentation Control in the State of Michigan as regulated under the 1994 Public Act 451, as amended – The Natural Resources Environmental Protection Act, Part 91 – Soil Erosion and Sedimentation Control. Soil Erosion and Sedimentation Control associated with this Contract will be monitored and enforced by the Department of Technology, Management and Budget, State Facilities Administration, Soil Erosion and Sedimentation Control Program.

STATE: The State of Michigan in its governmental capacity, including its departments, agencies, boards, commissions, officers, employees, and agents. Non-capitalized references to a state refer to a state other than the State of Michigan.

STATE/CLIENT AGENCY: A Department of the State of Michigan, for whose use the Project will ultimately serve, which requires professional design services.

SUBSTANTIAL COMPLETION: The form (DTMB-0445) stating that the Project work, or a portion of the Project work eligible for separate Substantial Completion, has been completed in accordance with the design intent of the Professional's Contract Documents to the extent that the Department and the State/Client Agency can use or occupy the entire Project work, or the designated portion of the Project work, for the use intended without any outstanding, concurrent work at the Project work site, except as may be required to complete or correct the Project work Punch List items.

SUSTAINABLE DESIGN: The Professional's use of a balance of appropriate materials, products and design methods that reduce the impact to the natural ecosystems and be within the Budget constraints of the Project. Sustainable Design shall be used wherever possible by the Professional in their Project design and an itemized list shall be provided with the Professional's Contract Documents that identifies the processes and products.

TASK: Shall mean the following: (1) A quantifiable component of design related professional study/design Task services required to achieve a Phase of the Project; (2) The most manageable sub-element within a study/design Phase; (3) A unique item of work within a study/design Phase for which primary responsibility can be assigned; and (4) Has a time related duration and a cost that can be estimated within a study, design, and construction Phase.

ARTICLE XIV COMPLETE AGREEMENT / MODIFICATION

This Professional Services Contract constitutes the entire agreement as to the Project between the parties. Any Contract Modification of this Contract and the Project/Program Statement scope of work requirements must be in writing, signed by duly authorized representatives of the parties, and shall be in such format and detail as the State may require. No Contract Modification may be entered into to compensate the Professional for correcting, or for responding to claims or litigation for the Professional firm's final design Contract Documents/study/design errors, omissions or neglect on the part of the Professional.

PROJECT/PROGRAM STATEMENT

PROFESSIONAL'S PROPOSAL

PROFESSIONAL CERTIFICATION FORMS

OVERHEAD ITEMS ALLOWED FOR THE PROFESSIONAL SERVICES CONTRACTOR FIRM'S HOURLY BILLING RATE CALCULATION

CERTIFICATES OF INSURANCE



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET State Facilities Administration Design and Construction Division

REQUEST FOR PROPOSAL ADDENDUM NO. 01

This form identifies an Addendum to a Request for Proposal for Professional Services, and incorporates interpretations or clarifications, modifications, and other information into the Request for Proposals. Addenda will be numbered by the Project Director and distributed through SIGMA Vendor VSS as an attachment.

TO:	DATE ISSUED
ALL PROPOSERS	December 7, 2022
PROJECT NAME	FILE NUMBER
2023 Environmental Services ISID	N/A
PROJECT DIRECTOR	PROPOSAL DUE DATE:
Indumathy Jayamani	Thursday, January 12, 2023

ADDENDUM ITEMS: (attach additional sheets and drawings if required)

This addendum is to clarify the date for questions.

Questions are to be emailed to Indumathy Jayamani at <u>jaymanii1@michigan.gov</u>, no later 2:00 p.m., EASTERN than on Friday, December 16, 2022

APPROVED BY:

PROJECT DIRECTOR Indumathy Jayamani

DATE December 6, 2022

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET State Facilities Administration 3111 W. St. Joseph Street Lansing, Michigan 48917 ADDENDUM NO. 2

To: All applicants and interested parties

Date: December 21, 2022

Subject: **Department of Technology, Management and Budget (DTMB)** 2023 Environmental Remediation ISID RFP Professional Environmental Consulting Services Various Locations, Michigan Request for Proposal

Please acknowledge receipt of this Addendum in your proposal.

Questions and Answers:

The following questions have been compiled to clarify answers to questions regarding portions of the RFP package:

Q1. Please confirm only one sample 1-week period of field activity logs and a sample weekly report must be provided with the proposal and not under each scope area.

A1. Confirmed.

Q2. Based on the RFP text that Section II-4 is "not required at this time." Please confirm DTMB is not expecting the consultant to provide an outline or any response to this requirement in the proposal at this time and it will only be "required at the time of future assignments"?

A2. Confirmed.

Q3. Please confirm which format is required for a proposal response: A) Only one questionnaire is required for the entire submission with the appropriate scope categories checked, regions checked, and applicable references/personnel for each desired scope; or B) A questionnaire is required for each scope category checked with applicable references/personnel for that desired scope (understanding there likely will be repetition across multiple questionnaires from a single company)?

A3. Only one questionnaire is required for the submission.

Q4. Please confirm whether or not a standalone document addressing Sections II-1 through II-6 of the RFP is required with the Questionnaire as part of this document (II-5) OR can just the Qualifications Questionnaire be submitted as the primary headings of Sections II-1 through II-6 are addressed within the Questionnaire?

A4. Yes, a written narrative addressing Section II-1 through Section II-6 (Section II-4 is for reference only, see A2), must accompany the questionnaire.

Q5. The RFP asks the respondent to provide "...at least three (3) projects in the last five years closely related to each of the project types". Is it acceptable for the respondent to provide a project example(s) that was completed while under the employ of another company?

A5. No, the project's provided as example should have been completed by the company responding to the RFP.

Q6. The Questionnaire and Proposal Format Part I – Technical, appear redundant. The RFP includes, "NOTE: Any information provided in one location can be referenced as needed in other locations." Please confirm that statements such as, "Refer to Questionnaire Response 5.1." or "Refer to Proposal Response II-4." is sufficient if a response is provided in one of the two documents. Or is the format intentionally redundant and EGLE requires a response in both locations, with a more expansive response provided in the proposal response narrative?

A6. For any information that is already provided in the questionnaire, referring that information is sufficient.

Q7. The billing rate document example provided as II-2-A. Position, Classification and Employee Billing Rate Information is similar, but differs from the MS Word document 2023 Environmental Fillable Position Class Billing Rate Worksheet (rev 221205). Please confirm the MS Word document is the format to include in the submittal.

A7. Confirmed.

Q8. Will EGLE include a list of sites and project types that will be included in the ISID contract in Year 1?

A8. No.

Q9. Is there a limit or targeted number of vendors the Department/Advisory Committee will offer a contract?

A9. No.

Q10. May respondents modify the 2023 Environmental Questionnaire to include additional project reference information (i.e., Project 4 Reference Information, Project 5 Reference Information)?

A10. Yes.

Q11. Page 9 of the proposal states, "The following items B, C, and D will be required only at the time a proposal for an individual assigned project is requested."; however, the statement is followed by bulleted items A, B, C. Please clarify.

A11. Typo noted. The Bullets should have been named B, C, and D.

Q12. Section I-9 of the RFP ("Proposals") states "when uploading, your attachment(s) the attachment must be 6mb or less." Can a bidder's proposal consist of more than one attachment, each being less then 6mb?

A12. Yes.

Q13. RFP, Section II, Part 1 Technical; Section II-3 Personnel. Please provide further detail regarding what is meant by chronological.

A13. Resumes of all proposed Key Personnel should include the period the experience occurred.

Q14. RFP, Section II, Part 1 Technical; II-5 Questionnaire? Please clarify what is meant by "narrative addressing the items above".

A14. See A4.

Q15. Questionnaire, Article 1, subsections 3, requests an organization chart depicting key personnel and their roles for a typical assigned project. The projects under this contract are anticipated to include a wide range of scopes and required skill sets. Please provide additional detail on what constitutes a typical assigned project for use in developing the requested organizational chart.

A15. The organizational chart should note the Key Personnel and staff needed for the project types and services identified in the questionnaire.

Q16. Questionnaire, Article 1, subsections 5, states "provide a four-year rate schedule per position". What is being asked for here? Is this different from II-2-A Position, Classification and Employee Billing Rate Information?

A16. The same information is being requested in both places.

Q17. Page 6 of the RFP states "when entering the proposal amount, please enter the total cost amount as \$1.00", but the Project Statement states, "please enter the total cost for all phases as the bid amount." Which method is preferred?

A17. Discrepancy noted. Please enter the bid amount as "\$1.00" as stated in the RFP.

Q18. In section II-2 of the RFP (page 6) states that the bidder should "Indicate which of these individuals you consider to be "Key Personnel" for the successful completion of these project types, identify them by position and classification and provide their resumes." Should resumes only be included for individuals that meet the "Professional Key Personnel" criteria in the "Guidelines for Position Classifications" or can we include resumes for personnel we consider key, but may be considered non-key in the position classification criteria?

A18. Yes.

Q19. Section II of the RFP (proposal format) states that the proposal must be submitted in the format outlined. However, in subsection II-4 "Management Summary, Work Plan, and Schedule," it is noted that this section is for reference only. May we omit this section heading from our proposal?

A19. See A2.

Q20. Question 4 in Article 1 of the questionnaire asks about recent changes in organizational structure (e.g., management team) or control of your company. Please define recent.

A20. Any changes within the past 12 months.

Q21. Several of the questionnaire questions, especially in Article 5, appear to request a singular number answer (as a percentage or number of days/weeks). We believe it may be helpful to provide more context for several of these questions. Will that type of response be accepted, or shall we limit our response to the singular, numerical answer only?

A21. At a minimum the percentage is required.

Q22. Article 6 of the questionnaire includes 5 Key Personnel. Should these include only the "Level 4" key personnel as described in the Guidelines for Position Classification or all Level 3 and Level 4 Key Personnel. If the latter, may we add an attachment for additional Key Personnel beyond the 5 spaces included in the questionnaire?

A22. See A18. Additional spaces can be added as needed.

Q23. In Article 6 of the questionnaire, questions 6.3 and 6.4 refer to the Professional Project Manager. Can you define "Professional Project Manager." Can this be more than one person?

A23. Please refer to the Guidelines for Position Classifications. Yes, Project Manager, can be more than one person.

Q24. The RFP asks in II-2 for an "Outline your experience with similar projects, sites, and clients as examples." The ask for similar project descriptions is repeated in II-6 and in Article 8 of the questionnaire. Is there a preference for which section includes the project examples?

A24. Responses are required for both parts. Also, see A6.

Q25. Page 6 of the Scope of Work document indicates that the Professional shall arrange for all its employees that will be working on a contaminated site to attend a health and safety training course, and/or a personnel protection course. Can you specifically identify which safety training courses are required?

A25. The professional, needs to identify all training required by State and Federal laws for personal working on a particular site type, and ensure that their employees working on that project/site have the necessary training.

Q26. RFP Page 8 and 12, Table II-2-A: Do we input employee names on this table? And classification (from "Guidelines for Position Classifications")?

A26. Yes.

Q27. Under Article 8 of the Questionnaire, is it expected we provide three references overall that encompass all the service areas we select or three references per service area.

A27. Please ensure you provide a minimum of three references per service area.

Q28. Please clarify the preference provisions for Michigan-based firms. Preference is not stated in the RFP document, but it is stated in the Scope of Work, and a certification form is attached to the RFP. If there is a preference, how is it applied?

A28. None.

Q29. Are there any preference provisions for Small Business Enterprises or Disadvantaged Business Enterprises?

A29. None.

Q30. The RFP states that "The ISID contracts will supplement, but not replace, standard requests for proposals or qualifications as a method for obtaining professional services." Please clarify how this contract will be used to supplement other methods for obtaining professional services.

A30. ISID contract is a standalone method in addition to the standard request for proposal process.

Q31. The RFP states that "DCD reserves the option of requesting ...proposals from more than one professional for a particular project." Please clarify the conditions, metrics or process for how the DCD decides whether to ask multiple ISID contract-holders to submit proposals for the same project.

A31. This will be decided on a case-by-case basis.

Q32. Are any terms of this (sample) contract negotiable, including, but not limited to, subjects of Indemnification, defend and hold harmless, and limitation of liability?

A32. No.

Q33. The scope of work states "The Professional's personnel and the personnel of its subconsultants/subcontractors will be required, if requested by the Agency Project Manager on behalf of EGLE's attorneys, to provide assistance to the State in the form of participation in legal actions against alleged responsible parties... including the preparation and execution of interrogatories, affidavits, and testimony as a fact witness... "The State will reimburse the Professional for such assistance as described above at the contractually approved rates for the Professional's personnel at the time services are required." May respondents submit classification-based labor rates for litigation support with the schedule of Position, Classification, and Employee Billing Rate Information, to be approved in the contract? And similarly, for Expert Witness Fees?

A33. The hourly billing rates for these types of services can be included.

Q34. Are subcontractors bound to contract rates (provided in the rate sheet)?

A34. No.

Q35. Can a sub (contractor) do lumpsum on the task orders?

A35. Payment of subcontractors is determined between the contractor and subcontractor.

Q36. Experience (questionnaire) – Do project examples need to be Michigan-specific (extra points?) or countrywide?

A36. Can be either.

Q37. Personnel (questionnaire) - Michigan based personnel required or given extra points?

A37. No.

Q38. Do sub-consultants need to complete the Environmental questionnaire?

A38. No.

PROFESSIONAL'S PROPOSAL



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET

Request for Proposal for

2023 INDEFINITE SCOPE INDEFINITE DELIVERY (ISID) FOR ENVIRONMENTAL SERVICES, VARIOUS LOCATIONS, MICHIGAN

PART I – TECHNICAL PROPOSAL

PART II – COST PROPOSAL

12 January 2023

Submitted by:



Weston Solutions of Michigan, Inc.

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Weston Solutions of Michigan, Inc. Suite 100 2501 Jolly Road Okemos, MI. 48864-3515 517-381-5920 • Fax 517-381-5921 WestonSolutions.com

12 January 2023

Indumathy Jayamani, Project Director Department of Technology, Management & Budget State Facilities Administration, Design and Construction Division 3111 W. St. Joseph Street Lansing, MI 48909

Re: Technical and Cost Proposal 2023 Indefinite Service Indefinite Delivery (ISID) Contract for Environmental Services, Various Locations, Michigan

Dear Ms. Jayamani:

Weston Solutions, Inc. (Weston) is pleased to submit the attached Technical and Cost Proposal in response to the Request for Proposals from Professional Service Contractors for the 2023 Environmental ISID Contract.

Weston is best suited to provide the required services to the State of Michigan (State) on this ISID Contract because of our dedicated staff, knowledge of regulatory requirements, and, most importantly, because of our long-term, trusted relationship with the State. Weston is prepared and committed to begin providing requested services upon contract execution and project assignment. We are confident that based upon our proven record of performance on multiple programs and numerous projects across Michigan, we are uniquely positioned to continue to deliver quality professional services to the State.

Weston acknowledges receipt of Addendum No. 1, dated 7 December 2022, and Addendum No. 2, dated 21 December 2022. As Weston's proposed Program Manager, I am authorized by Weston to execute the contract.

Should you have any questions or require additional information regarding our submittal, please feel free to contact me at 773-315-1959.

Very truly yours, Weston Solutions, Inc.

Joseph Ruiz Program Manager

•

Act with Integrity • Live Safely • Advance Client Success • Deliver Exceptional Quality • Be Inclusive • Create a Better World; Be the Change



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Part I - Technical



1. GENERAL INFORMATION AND PROJECT TEAM

Weston Solutions of Michigan, Inc. is the organization submitting this proposal as a wholly owned subsidiary of Weston Solutions, Inc. (Weston), a nationally recognized environmental engineering and consulting firm with extensive experience providing sustainable solutions to the State of Michigan (State) and many other state and federal agencies and private organizations. More than 85% of our new business opportunities are derived from satisfied customers that recognize the sustainable value Weston provides in solving complex problems.

1.1 COMPANY NAME AND ADDRESS

Weston Solutions of Michigan, Inc., 2501 Jolly Road, Suite 100, Okemos, MI 48864-3677.

SIGMA Vendor No.: CV0007304

1.2 CONTACT INFORMATION

Joseph Ruiz, Program Manager j.ruiz@westonsolutions.com Mobile: 773-315-1959

1.3 BRANCH OFFICES

Weston Solutions, Inc. has 26 offices in the United States, including the offices of several wholly owned subsidiaries. Weston Solutions of Michigan, Inc. can access resources from any of these offices to support our work for the State, which brings over 1,115 professional and technical resources to bear if needed to resolve any challenges you may encounter on your projects. Regionally, three of our branch offices are well situated to support the State:



Figure 1. Weston Midwest Regional Offices

Weston Solutions of Michigan, Inc. - Okemos, Michigan Weston Solutions, Inc. - Dayton, Ohio Weston Solutions, Inc. - Lincolnshire, Illinois

Additionally, as an employee-owned company, Weston has found that we can serve many of our clients more effectively and efficiently by enabling employees to work from virtual offices. In addition to the "brick and mortar" offices identified in **Figure 1**, Weston personnel are located in virtual offices in Ann Arbor, Dearborn, Grand Rapids, Houghton, and Traverse City, Michigan. Regardless of their location, the project-related activities of these employees are directed by Weston Project Managers (PMs) to ensure that our clients receive exceptional and cost-effective service.

1.4 SUBCONSULTANTS AND OTHER SUBORDINATE ELEMENTS

Weston is a full-service environmental and engineering consulting provider and does not anticipate the use of subconsultants for completion of the contract-required professional services. Weston does anticipate requiring the use of highly qualified, specialty subcontractors (e.g., direct-push technology [DPT], hollow-stem auger [HSA], rotosonic drillers, surveyors, waste disposal firms) to assist with conducting project-specific field activities under Weston supervision. These specialty subcontractors will be procured on a competitive, project-specific basis, in accordance with Weston and State procurement processes.

1.5 TYPE OF OWNERSHIP

Weston is an employee-owned corporation headquartered in West Chester, PA. The company operates in all states and territories of the United States.

1.6 STATE OF INCORPORATION

Weston is incorporated in the Commonwealth of Pennsylvania.



1.7 LICENSED TO OPERATE AND PRACTICE IN MICHIGAN

Weston is licensed to operate and practice in Michigan. Projects will be performed by Weston Solutions of Michigan, Inc., a wholly-owned subsidiary of Weston Solutions, Inc.

2. UNDERSTANDING OF PROJECT AND TASKS

Weston understands that the Department of Technology, Management & Budget (DTMB) is seeking qualified firms to provide professional services under an Environmental Indefinite Services Indefinite Delivery (ISID) contract. The professional services may include, but are not limited to, investigating, evaluating, designing, and/or supervising the implementation of abatements/remedies at assigned sites of environmental contamination under Parts 201 and 213 of the Michigan Natural Resources and Environmental Protection Act (NREPA) 1994 P.A. 451 (Act 451), as amended; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and other relevant federal and state statutes and requirements. The scope may include operation and maintenance (O&M) and improvements of remediation facilities. In addition, litigation support may also be required—a service Weston has provided to the State and others in the past.

Weston is currently managing multiple sites under the previous ISID contract, which is similar to this procurement, and is capable of managing multiple, complex projects while meeting quality objectives and deadlines. Our current experience on the previous ISID contracts, as well as multiple other contract vehicles with DTMB/the Michigan Department of Environment, Great Lakes, and Energy (EGLE), will enable us to "hit the ground running" on this 2023 ISID without a learning curve on either the contractual portion or the technical execution of projects under this contract. We understand the full dimensions and requirements for the work to be performed under this contract, having delivered these services to the State over the past 30 years. The following subsections summarize Weston's relevant capabilities and experience in providing these services.

2.1 PLAN TO ACCOMPLISH THE PROJECT

Although the plan to accomplish the project significantly varies between the project types listed in Article 2 of the Questionnaire, many common elements are shared throughout our approach. To demonstrate Weston's understanding of typical projects under this 2023 ISID, the remainder of this section presents a narrative summary of the effort that may be required.

2.1.1 Comprehensive Project Lifecycle

Weston excels at assisting the State with the entire lifecycle of various types of projects, from the planning stages through the remedial action (RA) and remediation facility O&M. Some sites will require application of the full Superfund process, whereas others will adhere to processes developed for non-Superfund sites under Parts 201 and 213. General RA sequences and phases under the ISID Contract are discussed in subsequent sections. Underground storage tank (UST) site assessments, reporting, and corrective actions use different terms but generally include the same types of project phases. Not all assignments will include each phase and associated work items described below.

2.1.2 Initial Site Inspection

Dependent upon project needs, Weston may conduct a complete review of site physiologic and geographic features. Weston's approach typically begins with reviewing existing information, such as topographic maps, aerial photographs, Sanborn maps, historical records, and localized groundwater usage, and reviewing any analytical data collected to date. This information review may be followed by an initial site inspection to confirm current conditions, look for potential receptors and signs of impact, and take photographs and notes to assist in scope of work (SOW) development. Samples may be collected to determine likely sources of contamination and evaluate the need for further action.

2.1.3 Plan Development

Upon completion of the initial site inspection and the identification of project requirements, Weston will meet with the assigned State Project Manager (SPM) to confirm the SOW and develop/submit the Work Plan for State review and approval. We understand that each work scope varies depending on site conditions, complexity, availability and quality of data, funding, and agency requirements. The Work Plan may also contain a Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP) depending on the type of site and the complexity of the



investigation. A Health and Safety Plan (HASP) is prepared for all assignments requiring field efforts in accordance with the Occupational Safety and Health Administration (OSHA) 1910.120. A Community Relations Plan (CRP) may be required for some projects. The purpose and content of each of the planning documents are summarized below.

Work Plan: The Work Plan identifies the detailed SOW for the assigned task(s) and is developed through close interaction and coordination between the State and Weston. Initial site visits and collection of available background information are usually required when preliminary site investigations are not conducted. Work Plans define the investigation program for data gathering that, upon implementation, will characterize a site and actual or potential threats to public health, welfare, and the environment. They also describe feasibility study (FS) steps used to evaluate and select RA alternatives.

Work Plans also establish the following:

- ✓ Project organization structure
- ✓ Staff assignments with roles and responsibilities
- ✓ Labor, subcontractors, and equipment needs
- Schedule with milestones and deliverables

QAPP: The need for a QAPP is generally defined by the complexity of the project and the potential for future litigation. Many projects proceed without a formal QAPP and use the Work Plan to document the necessary information. When the SPM determines that a QAPP is necessary, Weston can develop a QAPP that defines quality assurance (QA)/quality control (QC) and documentation requirements applicable to a particular project to ensure the collection of representative and defensible data. QAPPs are developed in accordance with up-to-date State and federal (Uniform Federal Policy [UFP]) guidance documents.

The U.S. Environmental Protection Agency (EPA) has developed and adopted uniform chain-of-custody and document control procedures to ensure sample integrity. Sample integrity is critical to ensure data validity, sound decision-making, and litigation support (if needed). Procedures are complex and exacting, and even minor departures can have serious implications on the validity and acceptability of the associated data.

SAP: A SAP is typically provided as part of a comprehensive Work Plan. Non-Superfund projects typically merge SAP components into the body of the general project Work Plan. The overall purpose is to outline detailed methodologies for a competent and productive field investigation that enables the gathering of information necessary to support risk assessment. The SAP is designed to address data needs/uses and data quality objectives (DQOs) identified during the project planning stage. It includes the rationale for selection of sample locations and chemical constituents and the laboratory method that will be used for analysis, defines the number of samples to be collected, and outlines sample collection, packing, custody, and documentation procedures.

<u>HASP</u>: Weston recognizes the State's need for a site HASP that is simultaneously effective, practical, and enforceable. To achieve this, Weston develops a site-specific HASP from a baseline Safety Plan, an initial site survey, and any existing analytical data. Site surveys and data reviews provide input for developing the hazard analysis. At a minimum, the HASP incorporates and is consistent with the requirements of:

- ✓ Michigan Occupational Safety and Health Administration (MIOSHA)
- ✓ Section 111 (c)(6) of CERCLA
- ✓ OSHA requirements (29 Code of Federal Regulations [CFR] 1910 and 1926)
- ✓ Standard Operating Safety Guide Manual (revised November 1984) by the Office of Emergency and Remedial Response
- ✓ Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (National Institute for Occupational Safety and Health [NIOSH]/OSHA/U.S. Coast Guard [USCG]/EPA, U.S. Department of Health and Human Services [DHHS] Publication No. 85-115, October 1985)

Each HASP will include the following elements:

✓ Authorized personnel and responsibilities



- ✓ Personal protective equipment (PPE) per task
- Decontamination procedures
- ✓ Work zone restrictions and delineations
- Activity hazard analyses (AHAs)
- Personal protection action limits
- Emergency information and phone numbers
- ✓ Route to nearest hospital
- ✓ Incident documentation procedures
- ✓ Contingency plans

Weston's designated Field Safety Officer (FSO) will be present during field activities. FSOs are certified in personal protection safety supervision at uncontrolled hazardous waste sites and are certified in cardiopulmonary resuscitation (CPR) and First Aid. Weston field staff are trained in hazardous waste site investigations and are enrolled in a medical monitoring program.

Community Relations Needs, Assessments, and Plans: Weston realizes the delicate nature of communicating technical data and potential risks to the general public and acknowledges the State's extensive efforts to inform and solicit feedback from the stakeholders. Weston works closely with the SPM to tailor our efforts to the distinctive needs of each community and site. Weston provides personnel, services, materials, and equipment to undertake each community relations program, and understands that community relations activities need to be integrated closely with overall project goals. Weston will prepare a CRP according to the EPA's Community Relations in Superfund – A Handbook and EGLE directives. Initial CRP efforts include interviews with knowledgeable citizens. In accordance with the SPM, Weston identifies key local officials, community leaders, and residents for interviews, and schedules interviews to discuss the site, State involvement, community perceptions, and information needs. A CRP presents the site's background/history, community background, community relations program outline, community relations techniques and timing, graphics and glossary, contact list, and Information Repository location. The CRP summarizes community concerns and needs and includes an implementation plan. Weston designs and maintains websites for community relations use and is prepared to do the same on ISID assignments. Weston community relations support activities may also include contingency planning; preparation of fact sheets, news releases, responsiveness summaries, and handouts designed to apprise the community of current or proposed activities; support at meetings, briefings, press conferences, workshops, and advisory groups; and preparation of audio/visual materials for presentations.

2.1.4 Remedial Investigation

Weston will conduct each Remedial Investigation (RI) in accordance with the methods and schedules set forth in the Work Plan, QAPP, SAP, and HASP, and agreed upon by the SPM. Each Weston PM will implement the principal RI components to ensure that the information gathered fully characterizes the site and supports the FS, RA, and potentially site closure. The types and complexities of RIs are highly site-specific; however, the principal components of an RI are waste/source characterization, contaminant delineation, exposure pathway analysis, and determination of receptors.

A wide variety of RI testing procedures may be employed. Test borings and trenches can identify the location, extent, and composition of waste material and sources. Geophysical surveys can identify metallic debris such as drums, pipes, or USTs. Soil vapor surveys can identify volatile organic compounds (VOCs) in soil and groundwater.

Based on Weston's experience, the most commonly used field investigative activities include DPT and other drilling methods to acquire subsurface soil information and install monitoring wells. Another common activity is the traditional sampling of environmental media (soil, groundwater, surface water,



Performing VAS at the Snedicor's Cleaners Site, Howell, MI

sediments, and soil vapor) using real-time screening tools such as membrane interface probe (MIP) and laser-induced



fluorescence (LIF) along with sampling techniques like vertical aquifer sampling (VAS) and hydraulic profiling tool (HPT).

Another critical RI component is vapor intrusion (VI) to indoor air pathway analysis, as scientific data continue to indicate health risks from the inhalation of VOCs, especially trichloroethylene (TCE), can be significant. Weston's Michigan staff are trained in the application of recent VI guidance and have participated in classroom, hands-on training, and site-specific application for VI investigations, including Vapor Pin[®] installations/sampling and indoor air sampling.

Weston staff are currently working on a contract assignment with EGLE personnel to develop a revised guidance document for the VI pathway.

2.1.5 Feasibility Study/Focused Feasibility Study

Weston will evaluate the overall site conditions and discuss with the SPM whether an FS or Focused FS (FFS) is appropriate (FFS preparation can result in significant time and cost savings). Weston will conduct the FS/FFS in accordance with the National Oil and Hazardous Substances Contingency Plan (and subsequent amendments) and the approved RI/FS Work Plan (where applicable). The FS/FFS will contain sufficient information and analyses for the State (and potentially EPA) to determine the appropriate remedy.

Weston procedures assume the integration of the RI and FS/FFS, so the FS/FFS can use data gathered during the RI to identify, screen, evaluate, and select RA alternatives. This approach assumes that the RI data are adequate to support the FS/FFS; if not, additional field work may be required. FS tasks performed in part or in their entirety include:

- Identification, initial screening, and evaluation of alternatives, including innovative treatment technologies
- ✓ Technical analysis
- ✓ Environmental assessment
- ✓ Public health evaluation
- ✓ Evaluation of applicable or relevant and appropriate requirements (ARARs) compliance
- ✓ Detailed cost analysis
- ✓ Selection of recommended alternative

The most cost-effective alternative, which is technologically feasible and reliable and adequately protects the public's health and the environment, will be recommended for implementation. Final selection of the alternative will be based on discussions with the State (and other stakeholders, as warranted) to ensure relevant factors are appropriately considered.

In cases where a full FS or FFS are not required, a more simplified screening process may be implemented. Weston's team frequently uses portions of the FS process to assist in evaluation of potential remedies. Key components and screening tables can be prepared to provide an evaluation to be used in decision-making without the need for a formal FS or FFS. Weston has provided select portions of an FS to assist in remedy evaluation/selection at the Former Speed E Mart and the Coe's Cleaner (see **Appendix B**) sites in Milford, MI. This evaluation provided a low-cost tool to assist the SPM develop the path forward for these sites.

2.1.6 Remedial Action Plans and Closure Reports

Weston will prepare Remedial Action Plans (RAPs) and Closure Reports in compliance with Parts 201 and 213 guidelines and formats. RAPs and Closure Reports are submitted to the SPM for review and approval before finalization.

For Superfund sites, Weston assists the State in the preparation of the Proposed Plan (PP) and Record of Decision (ROD). The ROD is the decision document that presents the selected RA for a site, summarizing site history, community involvement, scope and role of waste/operable units (OUs), site characteristics, risks, evaluated remedial alternatives, and the comparative analysis against the nine selection criteria. Detailed descriptions of the selected remedy, along with statutory determinations for the selected remedy, are the final critical components of the ROD.

2.1.7 Risk-Based Corrective Action (RBCA)

Although RBCA applications are most often associated with UST site work, the principles of site-specific cleanup standards are routinely applied to all environmental sites in Michigan, starting with the Parts 201 and 213 generic



cleanup criteria incorporating variable risk factors into residential and non-residential criteria. Both Parts 201 and 213 allow for extensive use of RBCA principles. EGLE has published a vast array of risk calculations that can be modified according to site-specific conditions and/or of alternative risk evaluations/models that Weston's risk assessment team frequently uses at sites across the United States. Weston's staff includes risk assessors and toxicologists, along with scientists and engineers fully trained and familiar in RBCA applications. These personnel work with the SPM to ensure critical, site-specific data are collected during the investigative phase to assist with the establishment of risk-based cleanup criteria.

2.1.8 Conceptual Design

Upon State concurrence, Weston will prepare a conceptual design package containing information collected over the course of the RI/FS, allowing development of final plans and specifications for implementation of the selected plan. Conceptual designs identify and cite reasons and rationale for each piece of technology that comprises the chosen alternative. An implementation schedule addresses potential phasing and segmenting considerations.

Bench-scale or pilot testing may be conducted at this stage to test the validity of the process. Weston recently developed a plan, procured services, and implemented a pilot test of soil vapor extraction (SVE) as a source mitigation remedy as well as a VI risk mitigation measure at the Coe's Cleaner Site in Milford, MI.



Weston collecting readings during a pilot test of SVE at the Coe's Cleaner Site, Milford, MI

Management and regulatory requirements are highlighted and refined

based on discussions with the SPM, as well as other State and local agencies that may be considered stakeholders. Information will be assembled into a concise package to be used as the basis for the development of plans and specifications for a final remedial design (RD) bid package, which will include the following:

- ✓ Engineering approach and selection rationale
- Conceptual drawings and layouts
- ✓ Process flow sheets
- ✓ Equipment type with approximate capacities and sizes
- ✓ Operational and engineering data descriptions
- ✓ Budget-level cost estimate
- Evaluation of potential construction problems

2.1.9 Remedial Design

Weston will serve as the design engineer for preparing construction plans and specifications for the approved initial and final RAs. Final design technical submittals/deliverables include RD plans and specifications, QAPP, HASP specifications, preliminary O&M Plan, and RA construction cost estimate.

Weston activities during RD will include the following:

- ✓ Site survey
- Plans and specifications in Construction Specifications Institute (CSI) format
- ✓ Completion of the MICHSPEC[™], DCSPEC or 50KSPEC
- Design Concept Memorandum
- Preliminary, Intermediate, Prefinal, and Final Design (30, 60, 95, and 100%)



Groundwater treatment system at Holly Road Site, Brighton, MI

Estimation of project cost



- Classification of waste and identification of contractor requirements for disposal/treatment facilities
- ✓ Biddability and constructability review
- ✓ Value engineering
- ✓ Selection of the type and number of contracts
- ✓ Preparation of the QAPP, HASP, and O&M Plan
- ✓ Meetings

2.1.10 Trade Contractor Planning Document Review

Trade Contractors (TCs) are typically required to prepare and submit a variety of planning documents for Weston review prior to the implementation of any site work. Weston will review these submittals and produce review comment logs to memorialize the draft and final planning document completions. Typical planning documents prescribed in the biddable specifications include:

Construction Work Plan - The means, methods, techniques, sequences, and/or procedures applicable to the work.

Schedule of Values – A schedule of pay items, which subdivides the work into its various parts and details, for each itemized part, including cost and pricing information required to make payments for work performed. The sum of all pay item costs in the Schedule of Values must equal the contract price for the work.

Shop Drawings – Drawings, diagrams, illustrations, standard schedules, performance charts, instructions, and other data prepared by or for the TC to illustrate some part of the work, or by a supplier and submitted by the TC to illustrate items of material or equipment.

HASP – The TC's health and safety (H&S) document, including AHAs, to ensure relevant work tasks are covered, required training documentation is complete, and necessary monitoring procedures are established.

Waste Management Plan – Identification of the TC's proposed disposal facility and example manifests/shipping documentation.

Schedule – A TC-prepared work schedule outlining the primary tasks and milestones for the project.

2.1.11 Trade Contractor Oversight

Weston provides experienced field staff support under the supervision of the Professional Engineer (P.E.) for TC oversight support on each project. Weston fully enforces the contract specifications prepared for each project, providing oversight and thorough documentation of the entire field phase of work (including preparing daily reports and photographs), thereby ensuring the field phases of work are completed as intended, project objectives are attained, TC budgets are adhered to, and waste handling and disposal protocols are followed (and documented). Weston has experience overseeing TCs during implementation of the RA and during post-RA O&M. Weston is actively engaged in TC oversight on two long-term O&M projects under State ISID contracts at Residential Wells-Holly Road Site in Brighton, MI (**Table 2**, Project No. 14) and in Coe's Cleaner Site in Milford, MI (**Table 2**, Project No. 3).



TC oversight at the Philadelphia Street Site, Detroit, MI

2.1.12 O&M Oversight

Weston personnel perform O&M on active sub-slab depressurization systems (SSDSs) at the Dry Cleaner Facility (Snedicor's Cleaners) (**Table 2**, Project No. 5) in Howell, MI and Residential Wells-Holly Road Site in Brighton, MI (**Table 2**, Project No. 14), as well as previously at Hamburg-Unadilla Road Contamination Area Site (Former ACO Division – Pittsfield Products) (**Table 2**, Project No. 10) in Pinckney, MI. Our team collects the necessary pressure readings and adjusts system operational conditions to ensure adequate protection for the structures with operational SSDSs. During O&M activities, we also collect SSDS exhaust samples to ensure compliance with discharge requirements as well as indoor air samples to ensure protection of human health. Weston conducts oversight of O&M contractors (TCs) on sites with active remediation systems. This includes reviewing and



understanding the TC's contract with DTMB, reviewing and approving invoices related to the O&M activities, reviewing monthly/weekly progress reports, and tracking the budget. Weston works with the O&M contractor to troubleshoot any equipment or system problems and reviews proposed modifications. Weston also assists the State with TC contract extensions and augmentations, which frequently requires a detailed review of budgets and work completed. If an augmentation is necessary, Weston will prepare project bulletins requesting estimates for the additional work. Weston completes a review of the estimate and facilitates negotiations with the TC, if necessary, before processing the bulletin and submitting to the State. Weston also assists with closeout of the O&M contractor's contract by reviewing final work products and obtaining official signed copies of other required DTMB contract documents.

2.1.13 Litigation Support

Weston provides litigation support as necessary to DTMB and EGLE and other clients across the United States. Examples of Weston's recent experience with providing litigation-type support to DTMB includes reviewing the permit application for Line 5 and supporting EGLE on the Ford-Livonia Transmission Plant project, where we provided review of potentially responsible party (PRP) actions under a Consent Decree. Weston's diverse, nationwide team provided expert witness testimony in support of the permit application review process for the Line 5 project. Our support in Livonia included review of PRP-generated documents as well as development of a numeric groundwater model to identify areas where additional investigation was required. Weston's model and our review of PRP-generated documents provided EGLE with the justification necessary to request additional work by the PRP, including a sewer investigation and additional investigation related to the VI pathway. Weston's deep bench of nationwide professionals allows us to support expert testimony for state and federal clients as well as provide PRP document review and oversight.

2.2 EXPERIENCE WITH SIMILAR SITES AND CLIENTS

As a result of the large volume of work completed for EGLE, DTMB, EPA, the Federal Emergency Management Agency (FEMA), the U.S. Postal Service (USPS), and numerous other clients in the Midwest over the last 40 years, Weston has acquired extensive knowledge and experience executing contracts like this one.

Specifically, with regard to the State, we have successfully served EGLE and its predecessors in the performance of projects similar to those anticipated under the 2023 ISID continuously since 1989. We have been carefully tracking and evolving our practices over time to meet your needs. Whether the work is performed for you directly or for others subject to EGLE review, we know what is expected and work to meet or exceed those expectations on each and every project.



State of Michigan: Weston has completed multiple work assignments in Michigan, dating back more than 30 years, resulting in a thorough understanding of the State's regulations in general with focus on Parts 201 and 213 of Act 451. Weston's Michigan office has provided regulatory knowledge and experience to the State at more than 375 sites during the application or negotiation of regulatory issues.

Weston has full working knowledge of the types of activities that are required by the State and of the established cleanup levels (residential, non-residential) currently needed to obtain site closure and/or manage the risks posed by hazardous chemicals in the environment.

Weston has provided the State with a full range of direct environmental and construction-related services since 1989. All of the environmental projects Weston has performed for the State were conducted under the auspices of Act 307 and, subsequently, Act 451 requirements. Weston's management approach is to apply and enforce existing State or local requirements during the investigative, engineering, construction, and remedial phases of each project. Weston performed a variety of tasks on each project, including, but not limited to:

- Plan development
- ✓ RI/FS
- ✓ Risk assessment (human health and ecological)
- ✓ Data validation, evaluation, and management
- 🗸 RD
- Specification development and contracting



- ✓ Construction administration, including construction management and TC oversight
- ✓ O&M
- ✓ PRP oversight
- ✓ Technical review
- ✓ Community relations

Weston has substantial experience investigating contamination, assessing the risks, and providing remediationrelated services at sites with environmental impacts throughout Michigan. Presented below are a few brief examples of Weston's experience in applying our knowledge of federal, state, and local environmental regulations on projects similar to those anticipated under the 2023 ISID.

- Dry Cleaner Facility (Snedicor's Cleaners) (see **Table 2**, Project No. 5) Weston completed a multimedia (soil, groundwater, and indoor air) investigation at an existing dry cleaner facility in a mixed residential-commercial area in Howell, MI. Weston's initial tasks were to assess then mitigate risks to human health posed by VI. Our assessment included sub-slab soil-gas and indoor air sampling and then the installation of temporary air purifying units to mitigate short-term risk. Weston then oversaw an expedited design and installation of two SSDSs with off-gas carbon treatment. Our focus after mitigating the immediate risks has been O&M of the system and continued source investigation. By working with the SPM, Weston performed an expedited response, enabling the continued use of the buildings as source characterization and remediation are evaluated.
- Former U.S. Aviex Site (see Table 2, Project No. 8) Weston has conducted a wide variety of tasks at this CERCLA site in Niles, MI, which is a former non-lubricating automotive fluids manufacturing facility. Throughout the project's history, Weston has conducted RI/FS, pilot testing, design, bidding, construction management, system maintenance and monitoring, on-site source area soil remediation, off-site water main extension/service installation, community relations support, monitored natural attenuation (MNA) sampling, monitoring well abandonment, decommissioning/demolition of on-site structures, 1,4-dioxane investigation and sampling, and per- and polyfluoroalkyl substances (PFAS) sampling in support of the State. Weston's current support includes ongoing plume monitoring and assessment of risks to nearby residential properties. Weston's continued support at this site throughout the project's lifecycle has allowed for easy transition between various SPMs and has ensured continuity on the project. Weston's recent work in collaboration with a specialty subcontractor to develop and use a numeric groundwater model as well as 3D visualizations of potential VI risks has ensured that the SPM has adequate information for long-term decision making as well as important information to secure additional funding in conjunction with EPA.
- <u>Cole's Garage</u> Weston has completed several investigations at the Cole's Garage site located in Sanford, MI. The site is the location of former leaking underground storage tanks (LUSTs) that impacted soil and groundwater with petroleum products. Previous investigations had confirmed the release, and monitoring wells were installed to evaluate the plume. Weston was tasked with completing the groundwater investigation and delineating the groundwater plume. Additionally, Weston completed a VI investigation of the building located at the site. Weston is currently assisting the State with final characterization of the VI issues and ultimately site closure.
- <u>Enbridge Line 5</u> Weston was contracted by the State of Michigan (Michigan Public Service Commission) to provide environmental expertise and reviews of the permit application for Line 5. Line 5 is a crude oil pipeline owned and operated by Enbridge Energy, Limited Partnership (Enbridge) that crosses the Straits of Mackinac. Enbridge submitted an application for construction of a replacement pipeline in a tunnel beneath the straits. Weston reviewed the application and multiple other documents for adherence to State environmental laws and regulations. Weston was able to assemble a team of in-house experts to address the multiple topics related to the application. These included wetland and endangered species reviews, National Pollutant Discharge Elimination System (NPDES) permit reviews, Tribal comments and concerns, a greenhouse gas emissions evaluation, and review of the tunnel and pipeline construction permit. Weston was able to complete all of these reviews and provided expert witness testimony as part of the court case related to the permit.

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In addition, Weston currently holds several large national contracts where we have provided environmental remediation-related services on hundreds of sites in Michigan and across the country. Presented below are contracts similar to the 2023 ISID that Weston holds in other states.

- <u>United States Postal Service (USPS) Environmental Preparedness, Response & Recovery Services (EPRRS)</u> <u>Contracts (see Table 2, Project No. 19)</u> – Since 2006, Weston has successfully delivered cost-efficient services for both urgent and non-urgent environmental preparedness, response, and recovery projects at USPS facilities nationwide under two successive EPRRS Indefinite Delivery Indefinite Quantity (IDIQ) contracts. Work under both contracts has overlapped within the last 5 years, and during that time Weston completed assignments at more than 170 facilities in the State of Michigan.
- <u>Illinois Environmental Protection Agency (IEPA)</u> Weston provides investigative through remedial professional services through a similar contract vehicle to IEPA throughout Illinois. Weston's contract with IEPA started in 1985 and includes work at numerous impacted sites in various stages of the project lifecycle on state-owned properties.
- <u>Illinois Department of Transportation (IDOT)</u> Weston provides full-service environmental services through a similar contract vehicle to IDOT in multiple regions and under a state-wide contract. Weston's contract with IDOT started in 1999 and includes work across Illinois on state-owned properties with potential or existing environmental impacts.
- <u>Pennsylvania Department of Environmental Protection (PADEP)</u> For more than 34 years, Weston has
 provided professional environmental services to the Commonwealth of Pennsylvania, including our PADEP
 Interim Response and Remediation Services Contracts (1999–Ongoing) and other previous contracts with
 PADEP, providing hazardous, toxic, and radioactive waste (HTRW) management and emergency response
 services.
- <u>New Hampshire Department of Environmental Services (NHDES)</u> Weston has held an Environmental Consulting Services Contract with NHDES consecutively since 1998. Under this contract, we provide sustainable solutions to complex environmental challenges while driving operational efficiencies that result in a best value to the State of New Hampshire.
- <u>New Jersey Department of Environmental Protection (NJDEP)</u> For the past 8 years, Weston has held an RI/RD/RA Services Contract with NJDEP, providing a broad range of relevant services, including preliminary assessments, site inspections, RIs, and unknown source investigations, and remediation projects at sites throughout the state.

Weston has performed thousands of tasks involving construction planning, oversight, documentation, scheduling, site evaluation, data analysis, hazardous waste management, analysis of remedial technologies, system design and construction, and preparation of RAPs. Weston's proposed management and senior technical staff based in Michigan have over 150 years of combined experience in the environmental fields. The experience gained over the years by working with environmental regulations and the resulting collective knowledge are significant and will provide a valuable resource to the State in implementing cost-effective solutions.

Presented below is a brief summary of Weston's experience with other governmental and institutional clients.



Federal Agencies: Weston has extensive experience working with federal clients, including providing support to EPA on emergency response, RI, RD, and RA contracts. Weston also has had contracts with other federal agencies, including FEMA, USPS, U.S. Army Corps of Engineers (USACE), National Park Service (NPS), U.S. Department of Defense (DoD), and the U.S. Department of Energy (DOE), and is

very familiar with government contracting requirements. Projects completed for these clients include, but are not limited to, emergency response, site investigation and evaluation, site removals/cleanup, construction oversight, PRP oversight, documentation, disaster response, and community relations. Weston has completed projects for these clients for over 60 years, contributing to our overall experience and knowledge of governmental client services.

Working with federal regulations and guidance, Weston routinely addresses regulatory issues ranging from interpretation of simple matters of guidance to full-scale design, construction, and remediation projects. Weston capabilities include the regular interpretation and application of the following statutes/regulations: CERCLA/Superfund Amendments and Reauthorization Act (SARA), Resource Conservation and Recovery Act



(RCRA), OSHA, Toxic Substances Control Act (TSCA), Clean Air Act (CAA), Clean Water Act (CWA), Safe Drinking Water Act (SDWA), and National Environmental Policy Act (NEPA).

Municipal and Other Institutions: Weston also has experience working for and alongside local governments, municipalities, and other institutions, such as local redevelopment authorities, cities and villages, counties, and universities. This experience has enabled Weston to fully understand the varying perspectives and initiatives of local entities along with state and federal agencies.

2.3 WHY WESTON IS BEST SUITED TO PROVIDE THE REQUIRED SERVICES AND HOW WE WILL PROVIDE THE BEST VALUE TO THE STATE OF MICHIGAN

Weston is best suited to provide the required services to the State on this ISID Contract because of our dedicated staff; knowledge of regulatory requirements; established track record of providing reliable, high-quality service and value to the State; and, most importantly, our commitment to continued excellence in helping EGLE and DTMB meet your missions into the future. We are committed to keeping our long-term working relationship with the State strong, adapting to the specific needs of each project and

Committed to environmental progress in the State, Weston's support to the State on over 375 sites since 1989 has contributed to a cleaner, safer environment in Michigan.

situation. We have the right mix of staff of varying levels of experience, expertise, and capabilities needed to achieve the State program's objectives of today and the foreseeable future (see Section 3). Weston will begin providing requested services upon contract execution and project assignment immediately when authorized to do so.

2.3.1 Program Continuity

Weston commits to continuing the dedication of Mr. Joe Ruiz, a highly skilled and experienced Program Manager, in this role for the 2023 ISID Contract. DTMB can be assured that he will provide the required level of management to make this program successful on all levels, including cost, schedule, and quality. Weston has demonstrated on previous State contracts that we can provide the dedicated resources necessary for efficient program Manager and the support of our current project management and delivery team allows for program continuity and prevents a "learning curve" when implementing the 2023 ISID Contract.

2.3.2 Long-Term Relationship

After over 35 years of providing environmental services to EGLE, Weston has gained extensive understanding and insight into EGLE program objectives, methodology, standard practices, and contracting protocols and requirements. Weston is, therefore, able to offer experienced staff with Michigan-specific regulatory and technical knowledge unmatched by many other firms. Weston's insight into DTMB policies and procedures are based on experience conducting environmental and construction project work directly for DTMB. As a result, Weston understands the need to use funds wisely and has devised ways to realize the greatest benefit to the State with the funds allocated. Weston has frequently worked with the SPM to reprioritize tasks based on risk levels or newly discovered information or analytical data. For instance, at the Quinn Road Grosse Pointe Dump Site in Clinton Township (see **Appendix B**), Weston's primary purpose during the investigative phase was to determine whether there was sufficient cover on the historical landfill and to identify associated impacts to soil or groundwater. When significant methane concentrations were discovered, Weston worked with the SPM to shift our focus to emergency purchase and installation of methane alarms in nearby homes, methane gas monitoring, and installation of methane vents to prevent migration into the nearby neighborhood. Weston worked with the SPM to document the scope revisions and worked with DTMB to secure the additional funds required.

2.3.3 Organizational Structure Advantages

Our core team is located strategically across Michigan and in surrounding Midwest states, allowing us to provide EGLE with responsive and efficient services and ready access to sites. Complementing our Michigan-based professionals and support staff in the Midwest, Weston has experienced professionals outside of the region but within ready access to our Michigan project leadership. One of Weston's key strengths is our ability to discern and employ the optimum staff resources and techniques for each assignment, based on specific site conditions and geology, DQOs, schedule, and budget. Our single-profit-center organizational structure means that our firm does not internally compete for resources. This means that we can draw from more than 1,115 technical resources

companywide as necessary—ensuring direct access to the firm's top talent when supplemental staff expertise is required. This organizational structure and internal emphasis on professional development allows for direct "reachback" to subject-matter experts (SMEs) and additional resources, as needed. Our technical resources are managed by discipline-specific practice leaders who promote staff development and sharing of qualified resources. Team development and learning are touchstones within our corporate quality program, and we regularly share technical and regulatory updates, lessons learned, best practices, and webinars/training experiences companywide to facilitate professional growth as well as deepen and diversify our bench strength.

Also of value are our communities of practice within Weston. In the communities of practice, our technical personnel share thoughts on emerging issues, technology improvements, and regulations to further the state of our practice and individual capabilities. This knowledge of which technologies have proven successful under varying conditions, potential challenges, and pitfalls is crucial to our SMEs staying at the forefront of their respective disciplines and brings you the benefit of our collective experience across our entire organization as we engage these resources to support our Michigan work.

2.3.4 Best Value Service

Weston's extensive experience with the State allows us to understand "best value" as defined by DTMB and EGLE and to work with the SPM to obtain the best, low-cost solution. Weston frequently develops SOWs where the investigation is completed in a stepwise manner, with each subsequent phase scope developed based on the results of the previous phase. This ensures that samples collected or wells installed (number and location) are providing data that are valuable in risk assessment and decision-making. We encourage our teams to identify and share ideas for value enhancement when preparing designs, reviewing designs (ours or those generated by others), or when performing remedial system performance reviews.

A recent example of Weston's approach to ensure each phase of investigation feeds decision-making for the next phase is at the Dry Cleaner Facility (Snedicor's Cleaners) site in Howell, MI. Weston's approach for delineation of the groundwater plume began with soil borings to develop a VAS plan. After each round of VAS, Weston systematically expanded the investigation area to target downgradient migration of the leading plume edge and to delineate the vertical and horizontal extent. The results of the VAS allowed us to work with the SPM and ensure the number and placement of permanent monitoring wells and screened intervals were optimized. At the conclusion of each phase of drilling, Weston collected waste characterization samples of the investigation-derived waste (IDW) to be submitted for prompt analysis. This provided characterization of the waste materials immediately after the drilling without a separate sampling mobilization and allowed Weston to coordinate timely disposal of the IDW (soil and/or groundwater), saving the project time and money and eliminating potential issues with long-term storage of waste. In addition, the waste characterization following each drilling event ensured that the IDW was properly characterized (i.e., hazardous or non-hazardous), which benefited the project by ensuring subsequent phases of work considered the accurate cost of IDW disposal in project planning and budget development.

Weston also frequently works with the SPM to develop a sampling plan that takes advantage of daily rates for drilling services to have contingency locations identified for additional work if the scheduled drilling is completed earlier than anticipated. We also frequently identify additional soil sample intervals or locations from which samples are collected and send them to the laboratory on "hold" pending the primary sample analysis results. These "hold" samples are only analyzed if the results of other analyses indicate that additional delineation is required. This approach can save additional mobilizations with very little impact to the cost of the initial investigation.

2.3.5 Data Management

Weston's data management team provides value added services by ensuring electronic data deliverables (EDDs) are quickly translated into data summary tables to provide an update to the SPM and other stakeholders and to assist in decision-making on further analysis or subsequent phases of work. Weston's data managers work with in-house data validators to ensure the integrity and accuracy of data received from the laboratory. Microsoft[®] Access-based databases are used to efficiently store and query site-specific data and increase the usability of data across platforms of real and potential value to the State (e.g., ArcGIS, gINT, EarthVision[®], EVS, and R).

Also, Weston developed a project-specific, web-based geographic information system (GIS) mapping viewer with integrated data query capabilities to aggregate historical observational data documenting the location of specific



databases are used to efficiently store and query site-specific data and increase the usability of data across platforms of real and potential value to the State (e.g., ArcGIS, gINT, EarthVision[®], EVS, and R).

Also, Weston developed a project-specific, web-based geographic information system (GIS) mapping viewer with integrated data query capabilities to aggregate historical observational data documenting the location of specific wastes, along with current and historical sampling and analytical data. Through this viewer, the data can be normalized to ensure consistency for analysis and reporting. This enabled the State to provide a massive amount of data in an easy-to-use format that is digestible by the public.

The GIS viewer is linked to the State's website for public access to ensure stakeholders have access to the data without the need for individual requests that would cost the State time and effort to fulfill. A typical data query and visual results are shown in Figure 2. The one-time investment by the State limits future effort related to the significant data management and stakeholder requests yet allows for the data to be available.



Figure 2. GIS Mapping Viewer, Torch Lake Superfund Site, Houghton County, MI

2.3.6 Low-Cost Visualization

Weston's software used to create electronic boring logs, when coupled with location and elevation data collected using a global positioning system (GPS) unit and analytical data as an EDD, enables us to produce threedimensional (3D) illustrations of geology and contamination at a very low cost. As shown in Figure 3, Weston produced a 3D image for the Former U.S. Aviex Site (described in more detail in Appendix B) to illustrate the potential for VI at a nearby residence. The effort required to produce this graphic was minimal, as the data management and electronic boring logs would be completed regardless of any visualization. The benefit of this graphic is that once developed, it can be updated with subsequent rounds of sampling automatically. This type of graphic can also be developed at a low cost for mature sites by converting boring logs to digital format, conducting a site survey, and correlating location data with analytical data. Once developed, this graphic can be a useful visual tool for communicating with stakeholders and can also be updated as subsequent sampling rounds are completed to track migration of a plume. Although this visualization tool is not as powerful as a numerical groundwater modeling tool, it can be very useful to cost-effectively convey project data when presenting a conceptual site model (CSM) and when showing "snapshots" of plume migration.




Figure 3. Soil TCE Plume, Former U.S. Aviex Site, Niles, MI

3. PERSONNEL

With over 1,115 staff across the United States, over 65 professionals in the Great Lakes states (within a 3-hour drive of Michigan), and 19 professionals located in Michigan, Weston is well prepared to meet the State's project staffing requirements. We understand that the project objectives are to efficiently and effectively evaluate, design, and supervise the cleanup, and/or to monitor the conditions of environmentally contaminated sites. Weston currently has five PMs based in Michigan that have been identified to support the 2023 ISID Contract, along with additional technical staff to assume lead field roles and execute project assignments (see **Table 1**).

Weston's Michigan-based proposed program/project management and senior technical staff have over 150 combined years of experience in the environmental field. This knowledge of environmental regulations and practices gained over the years is significant and will provide a valuable resource to the State.

Weston's management and technical staff regularly attend EGLE-sponsored training sessions and workshops, subscribe to EGLE mailing lists, review the regulatory updates provided on the EGLE website, and foster a broadbased understanding of Michigan environmental requirements using written and oral presentations to staff and clients. Training is also obtained for various EPA-related programs and policies due to related involvement with CERCLA and other pertinent statutes.



3.1 PERSONNEL BY CLASSIFICATION

Table 1. Personnel by Classification

Name ¹	Title ²	Physical Location	P-Level Classification ³			
*Joe Ruiz	Program Manager/Project Manager	Ann Arbor, MI	P4			
*Chris Douglas	Project Manager	Okemos, MI	P3			
*Michelle Bakkila	Project Manager	Houghton, MI	P3			
*Mike Castillo, P.G.	Project Manager	Grand Rapids, MI	P2			
*Catherine Schripsema	Project Manager	Traverse City, MI	P2			
*Herold Hannah, CIH, CSP	Health & Safety Manager	Pittsburgh, PA	P4			
*Megan Abbott, P.E.	Certifying Engineer	Lincolnshire, IL	P3			
*Kathleen Mooney	Quality Manager	Okemos, MI	P4			
*Ed Coggin, P.E.	Engineering Lead	Lincolnshire, IL	P4			
*Bryce Fletcher, P.E., CEM, CQM-C	Remedy/O&M Lead	Concord, NH	P3			
*Kathryne Frey, P.G.	Reporting Lead	Lincolnshire, IL	P2			
*Lisa Kammer, P.G.	PFAS Lead	Concord, NH	P4			
*Janelle Myers	Data Management Lead	Okemos, MI	P2			
*Vincent Dello Russo, P.G.	Geology Lead	Okemos, MI	P4			
*Chris Sollenberger, P.G.	Hydrogeology Lead	Newark, DE	P3			
*Terry Bosko	Risk Assessment Lead	Lincolnshire, IL	P4			
*Suraj Shankar	Cost Estimating Lead	Houston, TX	P3			
Jacob Emmendorfer	Field Team	Okemos, MI	P1			
Sarah LeTarte	Field Team/Data Management Support	Dearborn, MI	P1			
Tyler Lyon	Field Team/O&M Support	Okemos, MI	P1			
Kelsea Martindale	Field Team	Okemos, MI	P1			
Olivia McMillen	Field Team/Data Management Support	Okemos, MI	P1			
Tayler Oberman	O&M Support/Reporting	Lincolnshire, IL	P1			
Tim Walls, P.G.	Geologist	Lincolnshire, IL	P2			
Maggie Doheny-Skubic, P.G.	Geologist	Lincolnshire, IL	P2			
Julia Harlan	Engineer	Lincolnshire, IL	P1			
Alec Thompson	Engineer	Lincolnshire, IL	P1			
Stacy House	Geologist	Lincolnshire, IL	P1			
Mike McGee, P.G.	Geologist	Lincolnshire, IL	P2			

* Key Personnel

Notes: ¹ All employees presented above are direct employees of Weston Solutions, Inc.

² Functional roles and responsibilities included in more detail in Appendix A, Resumes

³Years of experience in P-Level Classification included in Appendix A, Resumes

Weston's key personnel will provide the State with a wealth of relevant experience and project support in accordance with the anticipated contract assignments. Key personnel were identified for the 2023 ISID Contract based on their applicable experience and relevant qualifications and are denoted with an asterisk (*) symbol in the table above. **Appendix A** contains the resumes for Key Personnel (all of whom are direct employees of Weston). Our proposed team has a successful track record performing similar project types that may be assigned as part of the 2023 ISID Contract. The following chart (see **Table 2**) demonstrates the depth of participation of the proposed Weston team on similar projects.



						_	_	-	_						, ,								
Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
J. Ruiz				•		•	•	•	۲				•	•	•	•	•	•	•	•			
C. Douglas			•			•	•	•	۲	•	•	•		•		•			•	•	•	•	
M. Bakkila			•				•	•	۲					•		•			•		•		
M. Castillo				•		•			۲										•				
C. Schripsema		•																					
H. Hannah		•	•	•		•	•	•	۲		•	•	•	•	•	•	•	•	•	•	•	•	•
M. Abbott			•				•		۲		•	•				•	•		•				•
K. Mooney									۲							•			•				
E. Coggin									۲										•				
B. Fletcher									۲							•							
K. Frey				•					۲				•		•	•		•	•				
L. Kammer		•																					
J. Myers			•	•					۲			•	•	•		•		•	•				
V. Dello Russo	•	•	•			•	•	•	۲	•				•	•	•		•	•		•	•	
C. Sollenberger																							
T. Bosko									۲							•			•	•			
S. Shankar									۲							•			•				
J. Emmendorfer																•							
S. LeTarte									۲				•			•			•				
T. Lyon									۲			•	•		•	•			•				
K. Martindale			•			•		•	۲					•		•							
O. McMillen		•	•			•	•	•	۲	•		•	•	•		•	•	•	•	•			
T. Oberman									۲														
No. Site/Project Name No. Site/Project Name																							
1 Chapel Lan	1 Chapel Landfill Site (EGLE)							13 () Juinn Ro	ad Gross	se Pointe	e Dump	Site (EG	GLE)									
2 Charlestow	2 Charlestown Naval Auxiliary Landing Field (CNALF) Remedial Investigation							14 F	Residential Wells-Holly Road Site (EGLE)														
3 Coe's Clear	3 Coe's Cleaner Site (EGLE)						15	Superior Lubricants Phase I & II Environmental Site Assessment (ESA) and Baseline Environmental Assessment (BEA) Support															
4 Confidentia	Manufact	uring Fa	icility: Ph	nase I Er	nvironme	ntal Site	Assess	ment and	k	16 Tech Town (Former General Motors Property)													
Supplemental Letter Report					17																		
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Table 2. Select Personnel Participation in Appendix B Projects

Weston Solutions, Inc. | Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.



3.2 ORGANIZATIONAL CHART

The Organizational Chart for Weston under the 2023 ISID Contract is presented in Figure 4 below.

Figure 4. Weston Organizational Chart





4. MANAGEMENT SUMMARY, WORK PLAN, AND SCHEDULE

Per Request for Proposal (RFP) Section II Proposal Format – Part I – Technical, subsection II-4 Management Summary, Work Plan, and Schedule, this section is for reference only and will be required for future assignments, but not required at this time. Weston will provide a response to this section for future assignments, as necessary.

5. QUESTIONNAIRE

Weston's completed Professional Questionnaire can be found on the following pages.



Department of Technology, Management and Budget 2023 Indefinite-Scope Indefinite-Delivery – Request for Qualifications Professional Environmental Consulting Services Questionnaire Various Locations, Michigan

INSTRUCTIONS: Firms shall complete the following information in the form provided. A separate sheet may be used if additional space is needed; please key the continuation paragraphs to the questionnaire. Answer questions completely and concisely to streamline the review process. If you provide information in this questionnaire that is relevant to any other parts of the proposal, please reference the article numbers to avoid repetition.

ARTICLE 1: BUSINESS ORGANIZATION

 Full Name: <u>Weston Solutions of Michigan, Inc. (Weston)</u> Address: <u>2501 Jolly Road, Suite 100, Okemos, MI 48864-3677</u> Telephone and Fax: <u>(T) 517-381-5920 | (F) 517-381-5921</u> Website: <u>www.westonsolutions.com</u> E-Mail: <u>j.ruiz@westonsolutions.com</u> SIGMA Vendor ID: CV0007304

If applicable, state the branch office(s), partnering organization or other subordinate element(s) that will perform, or assist in performing, the work:

Branch offices

Weston Solutions of Michigan, Inc. - Okemos, Michigan Weston Solutions, Inc. - Dayton, Ohio Weston Solutions, Inc. - Lincolnshire, Illinois

Virtual offices: As an employee-owned company, Weston has found that we can serve many of our clients more effectively and efficiently by enabling employees to work virtually. In addition to the "brick and mortar" offices identified above, Weston personnel are located in "virtual offices" in **Ann Arbor, Dearborn, Grand Rapids, Houghton, and Traverse City**, Michigan. Regardless of their location, the project-related activities of these employees are directed by Weston Project Managers to ensure that our clients receive exceptional and cost-effective service.

Our presence in the Midwest also includes offices in Ohio and Illinois. As a company, Weston maintains 26 full-service offices and two laboratories with more than 1,115 employees. In addition to our regional offices, Weston has an extensive network of remote resources based out of virtual offices. Our company structure includes a nationwide technical group that has no constraints, and our single-profit-center organization allows Weston PMs to reach back into our nationwide bench of technical staff to identify and assign the "right" resources regardless

of location. Resources from the nationwide technical group as well as our three Midwest regional offices can be used on an as-needed basis to provide the State with the specialized expertise and technical support necessary to complete assignments under this 2023 ISID contract.

Subconsultant and Other Subordinate Elements

Weston is a full-service environmental and engineering consulting provider and does not anticipate the use of subconsultants for completion of the contract-required professional services. Weston does anticipate requiring the use of highly qualified specialty subcontractors (e.g., DPT, rotosonic and HSA drilling, surveyors, waste disposal firms) to assist with conducting project-specific field activities. These specialty subcontractors will be procured on a competitive, project-specific basis in accordance with Weston and State procurement processes.

If awarded a contract and / or subsequent assignment(s), state the specific SIGMA business address which you would like associated for all communication (Contracts, Contract Order, Contract Modifications and Payments)?

2501 Jolly Road, Suite 100, Okemos, MI 48864-3677

Please list all person(s) authorized to receive and sign a resulting contract and / or subsequent assignment(s). Please include persons name, title, address, email and phone number.

Joseph Ruiz, Program Manager, 2501 Jolly Road, Suite 100, Okemos, MI 48864-3677, j.ruiz@westonsolutions.com, 773-315-1959

2. Check the appropriate status:

□ Individual firm □ Association □ Partnership ○ Corporation, or □ Combination – Explain: N/A

If you operate as a corporation, include the state in which you are incorporated and the date of incorporation:

Roy F. Weston, Inc. – Pennsylvania – January 2, 1957. In 2001, Weston became an employeeowned company and the corporation's name changed to Weston Solutions, Inc.

Include a brief history of the Professional's firm:

Weston delivers integrated sustainable, environmental, redevelopment, and construction solutions. Founded in 1957 as Roy F. Weston, Inc., Weston has a long-held commitment to environmental sustainability throughout our nationwide operations. Weston's history and growth within the State demonstrates our commitment to the State and its environmental programs. Weston began assisting clients in Michigan in 1978 when we became involved with a waste-to-energy facility owned by the Greater Detroit Resource Recovery Authority. In 1982,

Weston opened a project office in southeast Michigan to support our Region V Technical Assistance Team Contract activities for EPA. These activities provided for increased interaction between Weston and State personnel, initially with the Michigan Department of Natural Resources (MDNR), and later with the Michigan Department of Environmental Ouality (MDEO). With the award of the initial Level of Effort (LOE) Contract in 1989, Weston again expanded by opening an office in the Lansing area (Okemos) to provide support to the State and has continued to expand our client base to include state, federal, and private clients throughout Michigan. Weston has made a difference for over 65 years by providing a myriad of environmental services, including RIs, FSs, project planning and design, permitting, site remediation/cleanup, environmental impact studies and baseline monitoring, and construction surveillance. Across the country, Weston is supporting our state government clients who are embracing aggressive sustainability and infrastructure development agendas and seeking partners to help them achieve their short- and long-range goals. Weston affirms its commitment to work hand-in-hand with state governments to find the most creative, efficient, and costeffective solutions to meet their needs. Weston staff have a long record of supporting the State and are prepared to provide continued services under this 2023 ISID contract.

3. Provide an organization chart depicting key personnel and their roles for a typical assigned project. Include generic supporting staff positions.

Refer to Section 3.2 of Part I – Technical Proposal for the organizational chart.

4. Has there been a recent change in organizational structure (e.g., management team) or control (e.g. merger or acquisition) of your company? If the answer is yes: (a) explain why the change occurred and (b) how this change affected your company.

No changes.

5. Provide a four year rate schedule per position.

Refer to **Part II – Cost Proposal** for Billable Rate Schedule.

ARTICLE 2: PROJECT TYPES AND SERVICES OFFERED

Identify the project types and professional services for which your firm is exceptionally qualified and experienced. Contractor should have the capability to form potential teams with adequate experience in environmental investigation and remediation services. Provide attachments illustrating a minimum of three examples, with references, of successful projects performed in the last five years for each item checked. Identification of specialties will assist the State project directors/managers in matching firms with projects.

Refer to **Appendix B** for examples of successful projects performed in the last 5 years for each project type category that is checked below.

- \boxtimes Asbestos / Lead / Mold / Biohazard / Free Product / Regulated Waste Survey / Abatement (Appendix B-1)
- Brownfield Development

(Appendix B-2)

Ecological Risk Assessment / Forestry and Land Management / Wetland Mitigation / Streams and Lakes Restoration

(Appendix B-3)

Environmental Investigation / Characterization / Pilot Tests / Feasibility Study

(Appendix B-4)

Environmental/ Roto Sonic Drilling / Well Abandonment

(Appendix B-5)

Ground Penetrating Radar (GPR) / Laser-Induced Fluorescence (LIF) Field Screening

(Appendix B-6)

- □ Landfill Maintenance / Monitoring
- □ Nuclear Waste Management / Disposal / Remediation
- Per-& Polyfluoroalkyl Substances (PFAS) Sampling / Mitigation / Remediation

(Appendix B-7)

Phase I / Phase II / Baseline Environmental Assessments

(Appendix B-8)

Remediation Systems Design / Construction Oversight / O&M / Decommissioning

(Appendix B-9)

- □ Specialty Sub-Surface / Utility Inspection / Sewer Camera / Cleaning
- ☑ Underground / Aboveground Storage Tank (UST/AST) Removal / Demolition / Soil

Excavation / Closure

(Appendix B-10)

☑ Vapor Intrusion Assessments / Risk Mitigation / Design / Installation / O&M Services

(Appendix B-11)

ARTICLE 3: PROJECT LOCATION

Identify the regions where your firm can most efficiently provide services. Assignments may vary from the regions checked, depending on the specialties and services required.

- ⊠ Western Upper Peninsula (west of Marquette)
- Eastern Upper Peninsula (east of Marquette)
- ⊠ Northern Lower Peninsula (north of Grayling)
- Saginaw Bay area (east of 127, north of I-69 and M 57, south of Grayling)
- Western Lower Peninsula (west of 127, north of Muskegon, south of Grayling)
- Central Lower Peninsula (east of Battle Creek, west of Chelsea, south of M 46 and M 57)
- Southwestern Lower Peninsula (west of Battle Creek, south of Muskegon)
- Southeastern Lower Peninsula (east of Chelsea, south of I-69)

ARTICLE 4: CONTRACT UNDERSTANDING

The following items should be addressed on the assumption that your firm is awarded an Indefinite-Scope, Indefinite-Delivery contract. (See attached sample contract).

4.1 Is it understood that your firm is required to respond to small projects (less than \$25,000) as well as larger projects?

Yes 🛛 No 🗆

4.2 Is it understood that there is no guarantee of any work under this contract?

Yes 🛛 No 🗆

4.3 Is it understood that your firm will be required to execute the attached standard State of Michigan contract language for professional services?

Yes 🛛 No 🗆

4.4 Is it clearly understood that professional liability insurance is required at the time of execution of the ISID contract? (See Article 5 of the attached Sample Contract.)

Yes 🛛 No 🗆

4.5 Is it understood that your firm must comply with State of Michigan law as it applies to your services?

Yes 🛛 No 🗆

4.6 Does your firm have prior experience working with the State of Michigan?

Yes 🛛 No 🗆

If yes, explain:

Weston's experience in the State began in 1978. We opened our first office in the State in 1982 and won our first major State contract just a few years later in 1989. With three decades of Michigan experience, we understand the nuances, expectations, and processes of working with Michigan state agencies and departments. Having maintained contracts with the State since 1989, Weston has substantial, local governmental and institutional experience investigating and assessing the current risks at various environmental sites throughout the State. Weston's Michigan operations have worked on more than 500 environmental projects in the past 30 years as part of State contracts, and for private industry.

Over our greater than 30-year history of providing environmental services to EGLE, Weston has gained extensive understanding and insight into EGLE methodologies, contracting, and objectives. Weston is thus able to offer experienced staff with Michigan-specific regulatory and technical knowledge unmatched by most other firms. Notably, Weston has also gained valuable insight into DTMB policies and procedures, having conducted a number of projects directly for DTMB and other State agencies contracted through DTMB.

Weston annually contracts with hundreds of specialty firms across Michigan and the United States and maintains a rigorous procurement system designed to ensure the highest standard of work at our client sites. All subcontractors are required to complete thorough prequalification questionnaires as part of our due diligence.

Similarly, Weston performs and understands all of the required State Procurement Procedures applied to the various contracts issued by the State. By applying these procurement practices to our performances on State contracts since 1989, Weston has continuously exemplified the management and accounting protocols necessary to comply with and promote correct State Procurement Procedures.

Weston and its employee-owners are committed to safety first, every minute of every day, at work and at home. We actively care for the wellbeing of ourselves, our coworkers, our families, our clients, and our subcontractors. We will never compromise on safety—it is our first thought. We enable a safety-first and all-the-time culture wherever we live and work around the country. We are able to do this because we have embraced the principles of behavior-based safety.

Weston continues to be involved in changing environmental regulations (seven staff are active members on Interstate Technology & Regulatory Council [ITRC] committees), as well as actively engaging in workshops and trainings via professional associations (e.g., American Institute of Professional Geologists [AIPG], Air and Waste Management Association [AWMA], Society of American Military Engineers [SAME]). These trainings are supplemented by subscriptions to Michigan environmental newsletters, trade groups (Michigan Manufacturers Association [MMA] and Michigan Chemistry Council [MCC]), and discourse with State and legal clients/colleagues.

We are fully prepared to deliver and bring these strengths and value-added services in support of DTMB's planning efforts.

ARTICLE 5: CAPACITY AND QUALITY

5.1 Briefly describe your firm's methods and procedures for quality control for your deliverables and services.

Weston strives to embody our core value of "Exceptional Quality"—delivering products and services that meet the highest standards possible, every time. We believe that QC is the result of intentional, sincere, and directed policies and procedures and that exceptional quality is achieved through a thorough understanding of the project expectations as defined by both Weston and the client. Our personnel understand that they are each individually responsible for quality, and we routinely seek to identify and understand our clients' exceptional performance expectations and execute projects according to those expectations. By weaving the fundamentals of exceptional quality into the fabric of our culture, Weston provides services that consistently meet agreed-upon requirements of our clients, and ensures that the services and deliverables we provide are technically, scientifically, and professionally ethical and defensible.

Weston's Quality Management Program is designed to provide systems, processes, and procedures, with the ultimate goal of consistently providing high-quality deliverables and services. At the program level, we accomplish this through three basic approaches. First, we prioritize appropriate levels of client communication and staff/technology capabilities so that work is performed to meet client needs. Second, we remain dedicated to the development and application of improved technology in all aspects of environmental professional services. Third, we use internal controls to provide reasonable assurances that activities are proceeding as planned and quality objectives are being met.

At the project/task level, there are four key elements used to ensure QC of the services and deliverables we provide to our clients:

• <u>Quality Roadmap</u>: After communicating with the State and other key stakeholders to gain a comprehensive understanding of the scope of each project assigned, the schedule requirements, budget constraints, risks, and other concerns, Weston will prepare an internal Quality Roadmap for the project. The Quality Roadmap will identify the most important quality outcomes and outline key requirements for the Weston team to ensure success. The Quality Roadmap will be developed collaboratively by the Program Manager and key Weston staff, and will be reviewed and signed by the Weston team to ensure staff understand the State's desired outcomes and what will be required to exceed these expectations. While this is an internal document, the key requirements will be communicated to any team subcontractors, with the expectation of strict adherence to these requirements.

• <u>Project Instructions</u>: Weston prepares internal project instructions for every project. The instructions expand on the project SOW, document roles and responsibilities for project implementation, and detail the quality review process to ensure every member of the project team understands his/her role in achieving exceptional quality. The instructions provide contact information for key personnel and subcontractors, as well as client site representatives. They include specific details regarding field activities, including maps, sample locations (when applicable), type and number of samples to be collected, laboratory analytical methods, laboratory shipping information, and instructions for completing the chain of custody. The instructions include Standard Operating Procedures (SOPs) for tasks to be performed.

• <u>Kickoff Meetings</u>: Weston holds project kickoff meetings at the beginning of projects, before field activities, and before the preparation of deliverables. The personnel attending the meetings may vary depending on the pending activity but will include Weston's PM, field team members, and QA Manager. Other participants may include the SPM, Weston senior engineers and scientists, and subcontractor personnel as necessary. The kickoff meeting agenda will include a detailed review of the project instructions, schedule for field work and reporting, QC requirements, field documentation, and the project budget. Specific experience and licensing requirements will be reviewed to ensure that the right professionals are engaged in the project at the right time.

• <u>Project Deliverables</u>: Weston implements a time-tested process to ensure the quality of deliverables. The primary tool of this process is the Deliverables QC Form. The form lists the team members who a PM must engage to review and sign off on a team's work before submittal to the State.

- Primary Author The scientist/engineer who leads the development of the deliverable. This person will understand the QC review process and will initiate and implement the use of the QC form.
- o Data/Calculations Checker A technical staff member assigned to check data transcription and calculations for accuracy. This is not the person who did the initial data input and calculations.
- o Editorial Reviewer A technical editor who reviews the document for items such as reading clarity, grammar, typos, professional document formatting, and consistency. This person is not responsible for technical QC. Weston employs multiple technical editors who perform this service full-time across the organization.
- o Technical QC Reviewer An independent senior technical QC officer (the QA Manager) on the project. This role is to constructively challenge the work as an independent reviewer and ensure that client objectives for the report are met.
- o Project Manager The PM of Record with ultimate responsibility for the work delivered to the client. The PM must review the deliverable and approve its release, whether submitted electronically or in hard copy.

In addition to the project-specific roles assigned above, Weston has two employees with quality responsibilities across the program. Ms. Megan Abbott, P.E., is responsible for overseeing engineering and design-related work and for providing direction to engineering-related O&M projects. Ms. Kathleen Mooney will also provide overall QA across the entire program, ensuring consistency between deliverables as well as an overall review of regulatory compliance. Ms. Mooney's extensive experience working in Michigan on similar projects, as well as on environmental compliance projects for private industry, allows her to provide significant contributions to ensure Weston's team is using the correct and current regulatory citations and that our projects are evaluated for compliance with the rules and regulations.

During the implementation of the project, Weston will capture and share quality lessons learned and best practices using our online system to capture and disseminate the information. On a corporate level, Weston has implemented a system to track and learn from quality incidents. When a quality issue or near-miss is observed, the issue is evaluated, and "lessons learned" are shared across the firm using the Weston Portal (online business networking website). These tools combine to ensure Weston provides quality services, on time, on every task.

5.2 Has your firm been involved in claims or suits associated with professional services errors and / or omissions?

Yes 🗆 🛛 No 🖂

If yes, explain: Click or tap here to enter text.

5.3 Will there be a key person who is assigned to a project for its duration?

Yes 🛛 No 🗆

The Weston PM, along with the Program Manager, is responsible for assembling a project team to support the aspects of the project throughout its duration. Team members may vary based on specific project needs/requirements and project phases. For assignments that require an engineering component, a P.E. will be identified as a critical member of the project team. The Weston PM will be assigned to the project for its duration and will receive support from the Program Manager as necessary.

5.4 Please present your understanding of the relationship between your firm, the DTMB Design and Construction Division, and the State Agency for whom a project will be completed.

Over our greater than 30-year history of providing services to the State, Weston has gained extensive insight and understanding into State methodologies, contracting, and objectives. Weston is able to offer experienced staff with Michigan-specific regulatory and technical knowledge unmatched by other firms. Notably, Weston has also gained valuable insight into DTMB policies and procedures, having conducted environmental project work directly for Facilities Administration since 1999.

Weston's Program Manager will serve as the main point of contact (POC) for the DTMB Design and Construction Division, ensuring that DTMB policies and procedures associated with the ISID Contract are implemented. Weston's Program Manager and assigned PM will maintain contact with the SPM, ensuring that project-specific goals and objectives are achieved in accordance with the contract terms and conditions.

Weston's Program Manager, Mr. Joe Ruiz, has demonstrated State contract experience, including program management of State contracts for four different ISID contracts, as well as two site-specific Professional Services Contracts (PSCs). This experience is critical in maintaining a positive working relationship between all parties anticipated to be involved in this ISID Contract.

5.5 Describe your approach if a bidder proposes a substitution of a specified material during bidding.

Weston uses a two-step review process for design plans and specification to evaluate biddability and constructability before advertising for bid. The review is performed by a

technical review team comprised of the PM, applicable engineers (various disciplines), and other technical reviewers, including cost estimating, design, specifications, permitting, procurement, and project controls (cost/scheduling). As such, Weston is prepared to address bidder proposals for substitution of a specified material during bidding.

If a bidder identifies substitution of a specified material during bidding, Weston will initially evaluate the substantiating information provided by the bidder for the substitution and determine whether the substitution is equal to the specified material, is compatible with the intended application, and is in the best interest or of value to the State. Any potential substitutions are discussed with the SPM. If the specified material substitution is approved by the SPM, Weston will then provide a notice to potential bidders, via Bid Addendum (via the Sigma VSS website), that they can use the specified material or the approved substitute.

If a bidder proposes a substitution of a specified material in their submitted bid and has not previously identified this substitute during the bidding process, Weston will evaluate the bid based on original bid specifications and not the specified material substitute. Weston will, however, notify the SPM of the substitution and decide whether further evaluation is necessary to determine whether the specified material substitution is in the best interest or of value to the State. Weston will also require a post-bid addendum to the bid specifications and additional bid solicitations.

5.6 Describe your approach if a contractor proposes a substitution of a specified material or detail with shop drawing submittals or in construction.

Weston's approach has been and will continue to be requesting the contractor to provide information for substantiation of the savings to the State, or proof that the substitution is in the best interest of the State by use or acceptance of the substitution of a specified material or detail. Generally, the substitution should either improve the functionality and/or reduce the cost of the specific item. However, based on current economic conditions, sometimes material substitutions are required based on purchasing lead times and require evaluation based on schedule considerations. Following contractor submittal of this information and Weston and SPM evaluation of the information, Weston would then prepare a bulletin for the contractor to document the savings. Following receipt of the priced bulletin, Weston would submit the appropriate paperwork to the SPM and DTMB for adjustment of the contract values (Contract Modification) in accordance with the change.

5.7 How will your firm provide consistent and continuous communication pertaining to project activities and project status to the State of Michigan during the progress of projects?

Weston PMs will maintain consistent and continuous communication pertaining to project activities and project status via routine verbal or electronic mail (email) updates, adjusting the frequency and mode of communication to the intensity of the work and need for more rapid decision-making. Typically, Weston PMs will provide weekly updates to the SPM for ongoing projects during active work periods. Just before and during field work, the frequency of that routine communication may be increased to daily, if needed during fast-track work or if supporting emergency work. In addition to verbal communications and at the discretion of the SPM, on construction projects, field staff have provided weekly progress reports that contain a summary of work completed, problems encountered or anticipated, budget status, upcoming activities, and photographic documentation of work completed.

Weston also prepares and submits monthly progress reports for every active project. These monthly reports are submitted with the monthly project invoice, and include information on completed, ongoing, and future project activities along with a summary of the financial status of the project.

5.8 Does your company have an FTP or similar site for quick posting and distribution of information, drawings, field inspection reports, and other communications?
 Yes ⊠ No □

Weston uses Kiteworks, a file transfer protocol (FTP) platform that allows users to share files that otherwise are too large to share using email or text messaging platforms. This becomes very useful in allowing the SPM and other stakeholders to access large numbers of photographs, AutoCAD drawings, and other sizeable files. Our company also routinely uses a variety of other platforms to facilitate seamless data sharing, collaboration, and project communications, such as Huddle, a secure software as a service (SaaS) client collaboration portal; SharePoint; and Microsoft[®] Teams.

5.9 Describe your method of estimating construction costs and demonstrate the validity of that method.

Weston's methods of estimating construction costs vary depending on the scope of the project and are prepared by our in-house estimating team led by Mr. Suraj Shankar. Mr. Shankar has over 12 years of experience related to engineering and environmental project cost estimating. Mr. Shankar is supported by 9 professionals dedicated to estimating as well as 10 professionals dedicated to project controls (schedule and cost management during project execution). Our estimating group frequently develops conceptual and detailed cost estimates for a variety of construction, demolition, and remediation projects using Timberline Estimating Software, RS Means Cost Works, and RIB Construction Suite along with historical cost databases developed and collected by Weston.

Validity of each estimate is demonstrated by the following:

- Direct comparison with Weston's experience with self-performing or implementing similar projects as General Contractor. Weston's construction teams implemented an average of \$60M per year within the past 3 years.
- Direct comparison to previous bid results for similar scopes.
- Vendor-provided quotes on major items in a construction bid package.
- Thorough peer-reviews with experienced construction managers.

5.10 Describe your approach to minimizing construction cost over-runs.

Weston's approach to minimizing construction cost over-runs begins with ensuring accurate and comprehensive data are produced prior to the construction bidding process. The data collection then leads to preparation of biddable specifications (DCSPEC) that are concise and accurately address the construction scope. Weston works with DTMB/EGLE to develop a bid table with a mixture of lump sum and unit price items to ensure anticipated aspects of the work are not only included but are bid in a way that ensures minimal cost and prevents over-runs. During the contractor procurement process, Weston will work with DTMB/EGLE to set up a comprehensive site visit to ensure bidders are aligned on the SOW. Following the site visit, Weston will assist DTMB/EGLE in answering questions and preparing addendums to provide clarifications to the bidders and ensure equivalent bids from interested contractors (i.e., "apples to apples"). The next step is to complete thorough reviews of contractor bids and pre-award submittals to ensure that the contractor will meet the requirements of the project within the proposed cost.

Once the construction contract has been awarded, Weston assigns qualified oversight personnel (resident construction managers or resident engineers) to conduct field oversight of contractor tasks and to manage the contractor overall performance to ensure the State's objectives and interests are fulfilled. The amount of field oversight necessary will vary depending on the nature of the work being performed, with critical activities frequently requiring full-time oversight. Weston field staff work under the direction of the P.E. assigned to the project, and we fully enforce the biddable specifications prepared for each project, providing field oversight and thorough documentation of the entire field phase of work and ensuring the field work is completed as intended, project objectives are attained, trade contractor budgets are adhered to, quantities are documented, and waste handling and disposal protocols are followed and documented. Weston also conducts routine health and safety (H&S) activities (e.g., daily safety tailgate meetings, jobsite inspections, permit requirements) during oversight as well as reviews to ensure compliance with applicable environmental rules and regulations. If a serious issue is identified during the work, Weston will notify the SPM and work with the contractor to remedy the situation. If necessary, Weston will stop work until the problem is addressed. However, contractors are required to operate under their own H&S program and are responsible for the safety of their own personnel. Project requirements may include submittal of daily construction reports as well as weekly summaries. Weston leads construction progress meetings to review the project status and any potential changes in site conditions, where meeting agenda items include the identification of real and potential problem areas. Weston then issues progress meeting notes to the SPM and other stakeholders that document ongoing construction progress, changed conditions if any, and resolutions on a continuous basis. While keeping the SPM informed of the current project status, Weston understands that the State relies on Weston to manage construction projects in a manner that minimizes the need for State intervention should problems be identified, and Weston strives to provide solutions that are beneficial to the State in that regard.

5.11 What percentage of the construction cost should be devoted to construction administration (office and field)?

Between 5 to 20% (dependent on the total project size; smaller projects may require a higher percentage, whereas larger projects may require a lower percentage).

Construction management (administration) services may include contractor procurement, contractor pre-work submittal reviews, field oversight, documentation, engineering inspection of construction and system startups, review of requests for changed conditions or contract changes, preparation of contract bulletins, and review of contractor invoices and project record documents. Weston is experienced with the administration of DTMB contracting procedures, resident engineering services, and services such as engineering support, cleanup verification, and O&M support. Weston has successfully completed more

than 65 construction projects in support of the State since 1997. Weston's objective is to provide the construction management services necessary to ensure construction is executed in accordance with approved design requirements, at costs that equate to the standard percentage range of 5 to 20%. The range varies depending on total project size, project complexity, and amount of oversight required during construction.

5.12 What portion of the assigned work will be performed with your staff and what portion will be provided by sub-consultants?

100% by Weston staff.

Weston is a full-service environmental and engineering consulting provider and does not anticipate the use of subconsultants for completion of the contract-required professional services, including construction oversight. Weston does anticipate requiring the use of highly qualified specialty subcontractors (e.g., drilling firms, specialty laboratory services, surveys, waste disposal firms) to assist with conducting project-specific field activities. These specialty subcontractors will be procured on a competitive, project-specific basis in accordance with Weston and State procurement processes. Weston currently has five PMs identified to support the 2023 ISID Contract. Senior technical staff are also available to support these PMs, along with additional technical staff to assume lead field roles and execute project assignments. Weston has demonstrated on all previous State contracts that we can provide the required resources necessary for efficient project management and successful and timely project completion.

5.13 On a typical project, what would be your response time, from the time receive a project assignment to starting investigation and design work? A typical project might be one involving several disciplines and in the neighborhood of a \$25,000 fee.)

Approximately 2 to 3 calendar days.

Weston anticipates that within 2 to 3 days of receiving a project assignment (Contract Order receipt), the Weston Program Manager and Weston PM will hold a kickoff meeting with the SPM and initiate project assignment activities (i.e., planning for the investigation or initiating the design work).

Weston has taken steps to ensure that the required managerial, technical, and administrative personnel and resources are brought together to provide superior support to the State on this 2023 ISID contract. Weston will carefully review the technical, programmatic, and logistical demands of each project assignment in finalizing our approach to organizing, mobilizing, and executing the work.

5.14 How do you assess whether a construction bidder is responsive and responsible?

Weston follows applicable State statutes and utilizes our Michigan-licensed P.E.s for final design work products. Weston has utilized DCSPEC on State projects, and we are very familiar with the bidding process implemented for all public bid opportunities. Additionally, Weston has routinely requested bid specification documents that require bidders to provide project references and to demonstrate project experience on similar types of projects. Weston developed two checklists that we routinely employ during the evaluation of bids. Weston

provides the SPM and Contract Manager with a copy of the evaluation documents along with the recommendation for award. Importantly, Weston is practiced in the use and application of Public Act 430 of 2012 for State Agency bid solicitations and contracting, where best value contract awards made by the State include the evaluation of bidders' responsiveness, responsibility, price, and quality.

Weston evaluates all bids received using the following approach:

- Evaluate the pricing of the proposal, including checking the arithmetic, line item comparison between bidders, and individual pricing comparison between the three lowest bidders for similarities and anomalous differences that may suggest a misunderstanding or other concern (Weston checklist).
- Ensure inclusion of required submittals and evaluate the required bid submittal documents, including acknowledgement of any addenda issued (Weston checklist).
- Contact/validate references provided in bid submittal.
- Evaluate demonstrated project experience on similar projects.
- Conduct a pre-award conference call with the apparent low bidder, the SPM, and the Contract Manager to evaluate the bidder's understanding of the SOW and ability to successfully perform the work.
- Complete DTMB Best Value Construction Bidder Evaluation forms.
- 5.15 Describe your experience with similar ISID contracts.

Weston's Program Manager, Mr. Ruiz, has demonstrated State of Michigan contract experience, including successful program management of State contracts for four ISID contracts and two site-specific PSCs. He has both the knowledge and ability to efficiently manage and assess project assignments and personnel, and to ensure that the goals and objectives of the State are exceeded on every assignment. This experience is also critical in maintaining the positive working relationships between parties anticipated to be involved in this 2023 ISID Contract.

Weston performs and understands the State Procurement Procedures applicable to ISID contracts. Through real-time work experience applied since our initial 1989 LOE Contract, and through the application of procurement practices used in the performance of all State contracts since that time, Weston has continuously exemplified the management and accounting protocols necessary to comply with and promote compliant contractor procurement, project execution, and project completion procedures.

5.16 Describe your approach to a construction contractor's request for additional compensation for a change in the project scope.

On each construction project, Weston's objective is to provide the construction management services necessary to ensure that construction is executed in accordance with approved design requirements. During construction execution, Weston provides qualified field oversight personnel to observe and document the contractor's activities and adherence to the specifications. In addition, Weston resident engineering or construction management personnel lead weekly construction progress meetings to formally review the project status, including any potential changes in site conditions; therefore, Weston remains aware of any changes in project conditions and/or scope, ensures the SPM receives current status updates, and minimizes the frequency and magnitude of increased construction costs due to project scope changes.

If Weston becomes aware of any legitimate changes in the project scope, primarily through trade contractor formal notification, Weston will notify the SPM and Contract Manager and develop a contract bulletin to detail the changes. Weston would request pricing on the bulletin from the trade contractor. Following receipt of the priced bulletin and subsequent evaluation, Weston would submit the appropriate paperwork to DTMB for augmentation or adjustment of the contract values (Contract Modification) in accordance with the change in project scope.

5.17 Is a sample of field activity logs detailing a 1-week period (from one of the three (3) prior experience sites) and a weekly report provided?

⊠Yes □No

(Appendix C)

ARTICLE 6: PERSONNEL STAFFING

6.1 Is an organizational chart that includes each person on your project team and their identified roles for a typical assigned project provided?

⊠Yes □No

Refer to Section 3.2 in Part I – Technical Proposal for organizational chart.

6.2 Please fill out the following information regarding the personnel your firm considers key to the successful completion of the study or project scope of work:

Key Personnel 1

Name: Joe Ruiz

Job Title: Program Manager/Project Manager

Labor Classification: <u>P4</u>

College Degree(s): <u>B.S., Civil Engineering and Environmental Engineering</u>

Has this individual successfully completed 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes□No

Key Personnel 2

Name: Herold Hannah, CIH, CSP

Job Title: <u>Health & Safety Manager</u>

Labor Classification: P4

College Degree(s): <u>B.S., Biology/Microbiology</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 3

Name: <u>Megan Abbott, P.E.</u> Job Title: <u>Certifying Engineer</u> Labor Classification: <u>P3</u> College Degree(s): <u>M.S., Environmental Engineering</u>; B.S., Chemical Engineering

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 4

Name: <u>Kathleen Mooney</u>

Job Title: <u>Quality Manager</u>

Labor Classification: P4

College Degree(s): M.S., Environmental Science; B.S., Biology

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 5

Name: Chris Douglas

Job Title: <u>Project Manager</u>

Labor Classification: P3

College Degree(s): <u>B.S., Biology</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 6

Name: Michelle Bakkila

Job Title: Project Manager

Labor Classification: <u>P3</u>

College Degree(s): B.S., Environmental Engineering

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 7

Name: <u>Mike Castillo, P.G.</u> Job Title: <u>Project Manager</u> Labor Classification: <u>P2</u> College Degree(s): <u>B.S., Environmental Geology</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 8

Name: Catherine Schripsema

Job Title: <u>Project Manager</u>

Labor Classification: P2

College Degree(s): <u>M.S., Civil Engineering; B.S., Civil Engineering</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 9

Name: Ed Coggin, P.E.

Job Title: Engineering Lead

Labor Classification: P4

College Degree(s): <u>B.S., Civil Engineering; B.S., Architecture</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? \boxtimes Yes \Box No

Key Personnel 10

Name: Bryce Fletcher, P.E., CEM, CQM-C

Job Title: <u>Remedy/O&M Lead</u>

Labor Classification: P3

College Degree(s): B.S., Mechanical Technology; A.S., Mechanical Engineering

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 11

Name: <u>Kathryne Frey, P.G.</u> Job Title: <u>Reporting Lead</u> Labor Classification: <u>P2</u> College Degree(s): <u>B.S., Geology</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 12

Name: Lisa Kammer, P.G.

Job Title: <u>PFAS Lead</u>

Labor Classification: P4

College Degree(s): M.S., Geology & Geophysics; B.S., Geology

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? \boxtimes Yes \Box No

Key Personnel 13

Name: Janelle Myers

Job Title: <u>Data Management Lead</u>

Labor Classification: P2

College Degree(s): M.S., Earth & Environmental Sciences; B.S., Geology

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 14 Name: <u>Vincent Dello Russo, P.G.</u> Job Title: <u>Geology Lead</u> Labor Classification: <u>P4</u> College Degree(s): <u>M.S., Geology; B.S., Geology</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 15 Name: <u>Chris Sollenberger, P.G.</u> Job Title: <u>Hydrogeology Lead</u> Labor Classification: <u>P3</u> College Degree(s): <u>B.S., Geology</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? ⊠Yes □No

Key Personnel 16

Name: <u>Terry Bosko</u>

Job Title: <u>Risk Assessment Lead</u>

Labor Classification: P4

College Degree(s): M.S., Forest Soils; B.S., Forest Science

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? □Yes ⊠No

Key Personnel 17

Name: Suraj Shankar

Job Title: Cost Estimating Lead

Labor Classification: P3

College Degree(s): <u>M.S., Geographic Information Systems; M.S., Civil Engineering</u> and Water Resources/General; <u>M.S., Environmental Engineering; B.E.,</u> <u>Environmental Engineering</u>

Has this individual successfully completed 40-hour HAZWOPER training with an up to date 8-hour HAZWOPER refresher training? \square Yes \square No

6.3 Does the Professional Project Manager (PM) have at least three years' experience as a PM?

⊠Yes ⊡No

6.4 Does the Professional PM have a minimum of 10 years' experience with similar projects?

 $\boxtimes Yes \ \Box No$

6.5 Are the resumes for the key personnel provided?

ARTICLE 7: SPECIAL FACTORS

Include a brief description of your firm's special qualifications such as awards, recognitions, innovations, etc. that would pertain to this RFP. (As examples: any awards or recognition received by the firm or individuals for similar work, special approaches or concepts developed by the firm appropriate to this project, financial capacity, etc. Respondents may say anything they wish in support of their qualifications).

Weston has provided and is committed to continue providing project teams of talented and highly qualified professionals, dedicated to technical excellence and achievement of the State's goals and objectives—every time.

Weston's history demonstrates our commitment to the State and its environmental programs and our ability to work as a trusted partner with the State. Weston began assisting clients in Michigan in 1978 and the State directly in 1989. Weston has continued to grow since that time and has expanded our client base in Michigan to include state, federal, and private clients.

Weston commits to continuing the dedication of Mr. Ruiz, a highly skilled and experienced Program Manager, for the 2023 ISID Contract. The State can be assured that he will provide the required level of management to make this program successful on all levels, including cost, schedule, and quality, and that his experience on Weston's existing ISID contracts allows for continuity and ensures we "hit the ground running" on this 2023 ISID Contract.

As a testament to our previous success working with various clients, USPS formally recognized Weston's ongoing commitment to supporting the mission and continuity of USPS operations with a Supplier Performance Award in April 2019 and again in June 2022. USACE also recognizes Weston's quality work, as evidenced in our Exceptional and Very Good Contractor Performance Assessment Reporting System (CPARS) ratings.

Rated CPARS Evaluation Attribute	% of Ratings of Exceptional or Very Good
Quality of Work	76
Compliance with Delivery Schedules	71
Cost Control	58
Working with SB Subcontractors	50
Cooperativeness/Responsiveness (Management)	78

Snapshot of CPARS ratings of 100 recent TOs completed under various environmental contracts for USACE

Weston Michigan staff members regularly attend technical and regulatory workshops sponsored by EGLE and others, as part of our mission to provide superior technical solutions within the framework of Part 213 guidelines. Our staff are active in Weston's communities of practice that relate to the scope of this contract. Weston continues to be involved in changing environmental regulations (seven staff are active members on ITRC committees), as well as actively engaging in workshops and trainings via professional associations (e.g., AIPG, AWMA, SAME). These trainings are supplemented by subscriptions to Michigan environmental newsletters, trade groups (MMA and MCC), and discourse with State and legal clients/colleagues.

Past Performance... What Weston's Clients Say

Weston continually strives to ensure that each client's needs are met. The following are quotes from a number of our clients demonstrating successful past performance on assignments under previous ISID assignments as well as other similar contracts:

"Thank you all for all of your help over the past 5-years of hard work culminating in the development of the forensic process, memorialized in the technical memorandum, that allowed the project to move forward in a defensible approach to resolve the outstanding overbank issues. Your dedication and focus is most appreciated." – Chris Lantinga, EGLE, regarding Weston's performance at the Enbridge Oil Spill Response, Marshall, Michigan.

"I am very satisfied with conclusion and recommendation section of the report." – Mr. Priyank Patel, EGLE, regarding Weston's performance at the Former U.S. Aviex Site, Niles, Michigan.

"We appreciate the professional yet understandable presentation given yesterday. We have come to expect high-quality performance from Weston Solutions, and once again you delivered." – Ms. Jane Keon, Pine River Citizen's Task Force, regarding the Velsicol Chemical Corporation Superfund Site.

"We have made extraordinary requests of the project team and Weston has met or exceeded my expectations at every level during the Enbridge Energy Kalamazoo River Oil Spill response. I remain thoroughly impressed by the level of skill, dedication, and professionalism of Weston's project personnel." – Mr. Mark Ducharme, EGLE, regarding Weston's performance on the Enbridge Oil Spill Response, Marshall, Michigan.

"Planning cost estimates were thorough and complete a demonstration of outstanding planning. ...technical expertise was of high quality and was instrumental to the success of the sampling event. Weston developed and kept pace with a very ambitious schedule... The overall performance rating is Outstanding." – EPA Region 5 Performance Evaluation Board, regarding Weston's performance on studies and investigations in support of EPA and Great Lakes National Program Office under our Region 5 Remedial Action Contract (RAC).

ARTICLE 8: EXPERIENCE

8.1 Provide a client reference and brief descriptions of **at least three (3) projects in the last five years closely related to each of the project types** and professional services requested in this RFP. Emphasis shall be placed on recent work at sites of environmental contamination:

Project 1 Reference Information

Project Name: Refer to Appendix B for full and detailed reference information per category

Project Address:

Key Personnel:

Project City / State / Zip:

Contact Name / Phone Number / Email Address:

Project Description:

Project 2 Reference Information

Project Name: Refer to Appendix B for full and detailed reference information per category

Project Address:

Key Personnel:

Project City / State / Zip:

Contact Name / Phone Number / Email Address:

Project Description:

Project 3 Reference Information

Project Name: Refer to Appendix B for full and detailed reference information per category

Project Address:

Key Personnel:

Project City / State / Zip:

Contact Name / Phone Number / Email Address:

Project Description:



6. REFERENCES

Refer to **Appendix B** for the contact information of individuals who can provide reference on the quality service that we provide to our State clients on their critical projects and for detailed experience on similar projects.

Weston's experience with similar sites and clients is detailed in Section 2.2, Experience with Similar Sites and Clients.

Part II - Cost



POSITION, CLASSIFICATION & EMPLOYEE BILLING RATE INFORMATION

POSITION, CLASSIFICATION AND EMPLOYEE BILLING RATE INFORMATION PROFESSIONAL SERVICES - 2023 ENVIRONMENTAL ISID

Professional's Name Weston Solutions of Michigan, Inc.

Yearly Percentage Billing Rate Increase

4.50%

			V		V		V		V.		V.	
Level	Employee(s) Name	Classification	Ye	ear 2023	Ye	ar 2024	Ye	ar 2025	Ye	ear 2026	Ye	ar 2027
P3	Abbott, M., P.E.**	Certifying Engineer	\$	135.00	\$	141.08	\$	147.42	\$	154.06	\$	160.99
P3	Bakkila, M.**	Project Manager	\$	165.00	\$	165.00	\$	165.00	\$	165.00	\$	165.00
P4	Bosko, M.**	Senior Risk Assessor	\$	165.00	\$	165.00	\$	165.00	\$	165.00	\$	165.00
тs	Boyd C.	Contracts/Sub-Administrator	\$	90.00	\$	94.05	\$	98.28	\$	102.70	\$	107.33
TS	Brandt V.	Financial Administration	\$	75.00	\$	75.00	\$	75.00	\$	75.00	\$	75.00
P2	Castillo, M., PG**	Project Manager	\$	125.00	\$	130.63	\$	136.50	\$	142.65	\$	149.06
P4	Coggin, E., PE**	Senior Engineer	\$	165.00	\$	165.00	\$	165.00	\$	165.00	\$	165.00
P4	Dello Russo, V., PG**	Senior Geologist	\$	165.00	\$	165.00	\$	165.00	\$	165.00	\$	165.00
P2	Doheny-Skubic, M., PG	Geologist	\$	120.00	\$	125.40	\$	131.04	\$	136.94	\$	143.10
P3	Douglas, C.**	Project Manager	\$	165.00	\$	165.00	\$	165.00	\$	165.00	\$	165.00
P1	Emmendorfer, J.	Geologist	\$	75.00	\$	78.38	\$	81.90	\$	85.59	\$	89.44
P3	Fletcher, B., PE**	Senior Engineer	\$	150.00	\$	156.75	\$	163.80	\$	165.00	\$	165.00
P2	Frey K., PG**	Senior Geologist	\$	125.00	\$	130.63	\$	136.50	\$	142.65	\$	149.06
TS	Gibson, T.	Clerical	\$	75.00	\$	75.00	\$	75.00	\$	75.00	\$	75.00
P4	Hannah, H., CIH**	Health and Safety Manager	\$	145.00	\$	145.00	\$	145.00	\$	145.00	\$	145.00
P1	Harlan, J.	Engineer	\$	75.00	\$	78.38	\$	81.90	\$	85.59	\$	89.44
Т3	Hernandez, D.	CAD Operator	\$	105.00	\$	109.73	\$	114.66	\$	119.82	\$	125.21
P1	House, S.	Geologist	\$	75.00	\$	78.38	\$	81.90	\$	85.59	\$	89.44
TS	Johnson, K.	Sub-Adminstrator	\$	90.00	\$	94.05	\$	98.28	\$	102.70	\$	107.33
P4	Kammer, L., PG**	PFAS Lead	\$	150.00	\$	150.00	\$	150.00	\$	150.00	\$	150.00
TS	Behrens, B.	Sub-Adminstrator	\$	90.00	\$	94.05	\$	98.28	\$	102.70	\$	107.33
P1	LeTarte, S.	GIS Operator/Geologist	\$	85.00	\$	88.83	\$	92.82	\$	97.00	\$	101.36
тs	Lewis, B.	Clerical	\$	75.00	\$	75.00	\$	75.00	\$	75.00	\$	75.00
P1	Lyon, T.	Scientist	\$	80.00	\$	83.60	\$	87.36	\$	91.29	\$	95.40
P1	Martindale, K.	Geologist	\$	75.00	\$	78.38	\$	81.90	\$	85.59	\$	89.44
P2	McGee, M., PG	Geologist	\$	105.00	\$	109.73	\$	114.66	\$	119.82	\$	125.21
P1	McMillen, O.	Geologist/GIS	\$	80.00	\$	83.60	\$	87.36	\$	91.29	\$	95.40
тs	Mello, J.	Clerical	\$	75.00	\$	75.00	\$	75.00	\$	75.00	\$	75.00
P4	Mooney, K.**	Quality Manager	\$	150.00	\$	150.00	\$	150.00	\$	150.00	\$	150.00
P2	Myers, J.**	Data Management/Geologist	\$	110.00	\$	114.95	\$	120.12	\$	125.53	\$	131.18
P1	Oberman, T.	Geologist	\$	85.00	\$	88.83	\$	92.82	\$	97.00	\$	101.36
P3	Robinson, D.	H&S Manager	\$	125.00	\$	130.63	\$	136.50	\$	142.65	\$	149.06
P4	Ruiz, J.**	Program Manager	\$	165.00	\$	165.00	\$	165.00	\$	165.00	\$	165.00
P2	Schripsema, Catherine**	Project Manager	\$	125.00	\$	130.63	\$	136.50	\$	142.65	\$	149.06
P3	Shankar, S.**	Cost Estimating Lead	\$	150.00	\$	150.00	\$	150.00	\$	150.00	\$	150.00
P3	Sollenberger, C., PG	Senior Hydrogeologist	\$	150.00	\$	156.75	\$	163.80	\$	165.00	\$	165.00
тѕ	Stefanowski, K.	Clerical	\$	75.00	\$	75.00	\$	75.00	\$	75.00	\$	75.00
P1	Thompson, A.	Engineer	\$	85.00	\$	88.83	\$	92.82	\$	97.00	\$	101.36
P2	Walls, T., PG	Geologist	\$	115.00	\$	120.18	\$	125.58	\$	131.23	\$	137.14
TS	Winter, P.	Clerical	\$	75.00	\$	75.00	\$	75.00	\$	75.00	\$	75.00

*Billing Rate will be in accordance with the attached guideline page for instructions regarding the "Overhead Items used for Professional Billing Rate Calculation," and the attached "Sample Standard Contract for Professional Services," Article II, Compensation.

** Key Project Personnel

Weston Solutions, Inc. | Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

Appendix A: Key Personnel Resumes



a. Name and Title	b. Years of Experience in Current Classification	otal Years of Experience								
Joe Ruiz, Program Manager/Project Manager	4 (P4)	22								
c. Roles and Responsibilities as They Relate to the	RFP									
Responsible for overall management of contract and project assignments. Will serve as main point of contact (POC) with Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Department of Technology, Management & Budget (DTMB), driving cost-effective and efficient contract execution, preparing/submitting contract modifications as needed, and assisting PMs with financial, client communication, and staff related matters.										
I. Direct or Consultant Employee e. Physical Location (City, State)										
Direct employee of Weston	Ann Arbor, Michigan									
Other Relevant Professional Qualifications										
Education:										
B.S., Civil Engineering and Environmental Engineerin	ng – University of Michigan									
Training/Certifications:										
40-Hour/8-Hour Hazardous Waste Site Training Course, Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910.120(e)(3); 8-Hour Site Manager and Supervisor Course (SHSC), OSHA 29 CFR 1910.120(e)(4)										
Experience Summary:										
Experienced in evaluating remedial alternatives and preparing Resource Conservation and Recovery Act (RCRA) corrective measures studies, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) feasibility studies (FSs) and focused FSs (FFSs), and engineering evaluations/cost analyses (EE/CAs). Experienced in the Illinois Environmental Protection Agency (IEPA) Voluntary Cleanup Program preparing Comprehensive Site Investigation Reports, Remedial Objective Reports, Remedial Action Plans (RAPs), and Remedial Action Completion Reports (RACRs). Also experienced with underground storage tank (UST) menagement, including removal, remediation projects, site characterization, and reimburgers and reimburgers and remediation projects.										
Relevant Project Experience										
Program Management for Various Contracts, State Provides program management for State of Michigan of Delivery (ISID) contracts and two site-specific profess management and administration, scheduling and organ contractual deliverables for quality assurance (QA), bu with EGLE and DTMB regarding technical and contra-	e of Michigan (01/2022–Ongoing contracts, including four Indefinite ional service contracts. Responsib izing resources for projects, revie adgeting and tracking project costs ctual information.	b), Program Manager. e Scope Indefinite bilities include contract wing all technical and s, and communicating								
Quinn Road Grosse Pointe Dump Site, Clinton Township, MI, EGLE (06/2018–Ongoing), Project Wanager. Supervised a site investigation at a former quarry that was reportedly used as a dump site and now operates as a public park, located adjacent to an elementary school in a residential neighborhood. The initial nvestigation focused on identifying the presence of waste, soil contamination associated with the waste, and the obtential for methane generation from waste degradation. Following the initial mobilization when waste was dentified and soil and soil-gas samples were collected, the focus shifted to risk mitigation due to extremely elevated levels of methane from the waste. Assisted EGLE in assessing risk by installing vapor wells to monitor nethane on the edges of the waste, as well as by selecting and procuring indoor methane alarm systems for residents and the school. Weston continues monitoring the vapor wells to establish seasonal fluctuations in concentrations and ensure the gas vents were effectively reducing off-site migration risks. Tech Town (Former General Motors Property), Dayton, OH, City of Dayton (03/2012–Ongoing), Project Manager. Organized and managed the team to deal with Polychlorinated Biphenyl (PCB)-contaminated areas.										

Manager. Organized and managed the team to deal with Polychlorinated Biphenyl (PCB)-contaminated areas. Responsibilities included coordination with stakeholders, including municipal leaders, contractors working for the municipality, and utility contractors. Weston prepared a Request for Proposal (RFP), including specifications and construction drawings; evaluated contractor bids and procured a contractor; and supervised the excavation of



PCB-contaminated soil from the Tech Town site for off-site transportation and disposal. The excavation activities were conducted in accordance with the Toxic Substances Control Act (TSCA) *Site-Wide Risk-Based Management of PCB-Contaminated Materials Work Plan* to satisfy the requirement to remove soils exceeding the site-specific criteria. The work was coordinated with ongoing road widening work (by others) to avoid disturbing the new road after installation. The expedited schedule met the demands of the ongoing construction schedule, causing no delays to the other contractor's work.

United States Postal Service (USPS) Environmental Preparedness, Response & Recovery Services (EPRRS) Contracts, Various Locations, USPS (06/2006–Ongoing), Project Manager. Conducted a site assessment to determine the source of water accumulating in the basement, leading to mold issues. Investigation included installing a piezometer to log soil conditions and determine groundwater level, surveying sewers (storm and sanitary) to determine whether the excess water was due to infrastructure degradation, and evacuating and abandoning a dilapidated geothermal heating system.

Groundwater Extraction and Treatment: Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (01/2001–Ongoing), Project Manager. Coordinated project from design through construction and operation and maintenance (O&M). Developed pre-design investigation, coordinated design, procured subcontractors, held weekly status meetings, assisted with permitting, and led communications with stakeholders, including community groups, local businesses, local elected representatives, and community organizations. Managed project throughout O&M, including permit renewal. Weston designed and installed a groundwater containment, extraction, and treatment system as part of a remedial action (RA) required under a Consent Decree with the State of Illinois. The groundwater containment system includes approximately 100,000 square feet (sf) of soil-bentonite slurry wall, installed to depths up to 30 feet below grade. Slurry wall design was based on chemical compatibility testing with existing soil, and as-built permeability testing showed a permeability of 5.4 x 10^{-8} centimeters per second. The soil-bentonite slurry wall was constructed around two existing stormwater discharge lines and included installation of six penetrations through the wall. Penetrations included newly installed stormwater management piping, extraction water conveyance lines, and a treated water effluent discharge line. The groundwater extraction system includes underground water conveyance conduits, 15 precast vaults, and housing extraction wells/pumps/manifolds. Extraction pumps are operated using compressed air supplied by a central compressor. The extraction system spatially covers over 30 acres and is designed to extract 20 gallons per minute (gpm). The groundwater treatment system includes an iron removal unit, bag filters, centrifugal filter, granular activated carbon (GAC), air stripper, organoclay filtration system, and an activated alumina system (metals removal). The system is monitored remotely using a programmable logic controller (PLC) system and is operated year-round. Water is discharged through underground piping to an outfall in a nearby ditch. The discharge at this outfall is monitored under an NPDES permit.

Various Environmental Services, Multiple Locations, Confidential Client (01/2019–Ongoing), Program Manager. Program Manager for an aerospace manufacturing client with facilities in California (six sites), Texas (two sites), and Washington (one site). Projects range from facility compliance (Spill Prevention, Control, and Countermeasures [SPCC], National Pollutant Discharge Elimination System [NPDES]) to environmental remediation activities, including site characterization, remediation planning (FS and remedial design [RD]), and long-term monitoring of an impacted groundwater plume. Responsibilities include contract, client, and team communication across the program to ensure consistency in deliverables. Additional responsibilities include change order management, subcontracting, security clearance, and safety reporting.

Industrial Wastewater Upgrades, Multiple Locations, Confidential Client (08/2018–10/2022), Program Manager. Program Manager for three concurrent design-build projects in Florida, Massachusetts, and Georgia to treat industrial wastewater associated with food and beverage production. Responsibilities include contract, client, and team communication across the program during design and construction. Wastewater treatment included pH adjustment, phosphorus removal, odor controls, and closure of an activated sludge pond.

Municipal Wastewater Treatment Plant (WWTP) Upgrades, Multiple Locations in Wisconsin, CLEARAS Water Recovery, Inc. (10/2019–12/2022), Program Manager. Program Manager for three design projects and one design/construction management project providing tertiary treatment upgrades to municipal WWTPs. Responsibilities included contract, client, and team communication across the program during design and construction management phase for biological treatment of wastewater, which included using algae growth in



photobioreactors to reduce phosphorus concentrations in effluent water. Additional responsibilities included loan reimbursement, change order management, and subcontracting on behalf of the municipality.

Hudson Truck Stop Wastewater Membrane Bioreactor (MBR) Design, Hudson, WI, Confidential Client (08/2018–12/2022), Project Manager. Managed the design, permitting, and construction of the new 10,000-gpm MBR packaged treatment plant consisting of a mixed industrial and municipal influent that is treated and discharged to an on-site drain field. Treatment plant upgrades were necessary due to excess nutrients being released to the drain field. Based on Wisconsin regulations, the amount of nitrogen being released to the groundwater (confirmed by groundwater sampling) was above the limit. Weston assessed the treatment system effluent sample results, as well as the groundwater samples, and recommended upgrading to treatment using an MBR system. The permitting included coordination with both the Wisconsin Department of Natural Resources and the Wisconsin Department of Safety and Professional Services. Coordinated vendor and general contractor package development, awarded the contracts, and managed a team of engineers providing startup and troubleshooting services. The existing treatment plant was kept operable until the new treatment system was constructed and ready for startup to prevent impacts to facility operations. Following startup of the new treatment system, Weston collected effluent and inter-process samples to verify chemical dosing and optimize treatment efficiency.

Remedial Action, Harrison Township, Dayton, OH, Confidential Client (10/2018–12/2021), Project Manager. Supervised design and implementation of an RA for a chlorinated solvent release. The source of the solvent plume was remediated using 2,000 pounds of PlumeStop[®] applied in a grid pattern using direct-push injection methods. Prior to the RA, additional monitoring wells were installed and vertical aquifer sampling was performed to fully characterize the plume. Following the RA, numerous rounds of groundwater sampling were conducted to monitor the remedy effectiveness.

Confidential Manufacturing Facility: Phase I Environmental Site Assessment (ESA) and Supplemental Letter Report, Danville, VA, Confidential Client (07/2021–11/2021), Project Manager. Managed the Phase I ESA and associated Environmental Compliance Review (ECR) site visits. The site visits included interviews, record reviews, site reconnaissance, documentation of site and adjacent property conditions, and environmental compliance evaluation to support due diligence and property acquisition associated with a custom chemical manufacturer property. Led the team in preparation of the Phase I ESA and ECR reports. Project efforts were performed in accordance with ASTM International (ASTM) E1527-13 and applicable environmental regulations.

Tyndall Air Force Base (AFB) Performance Based Remediation (PBR), Panama City, FL, Air Force Center for Engineering and the Environment (AFCEE) (01/2014–09/2020), Project Manager. PM for six operable units (OUs) within Tyndall AFB. Responsibilities included developing Uniform Federal Policy - Quality Assurance Project Plans (UFP-QAPPs), negotiating with the U.S. Environmental Protection Agency (EPA)/Florida Department of Environmental Protection, conducting investigations, and preparing remedial investigation (RI)/FS reports.

Superior Lubricants Phase I and II ESA and Baseline Environmental Assessment (BEA) Support, Milan, MI, Confidential Client (11/2017–07/2019), Project Manager. Responsibilities included overall project management and technical management, including preparation of Phase I ESA, coordination and oversight of a Phase II ESA, and coordination and review of a BEA and Due Care Plan. Performed budget tracking, invoice review, monthly report preparation, and client correspondence.

Lessor Maintenance Environmental Assessments, Various Locations, USPS (05/2018–05/2019), Engineer. Performed planning activities and field oversight of asbestos and lead abatement projects. Responsibilities included contractor coordination, interface with the facility management to ensure no disruption of operations, sample collection, and documentation.

Phase I ESA, Wickliffe, OH, Confidential Client (09/2015–12/2016), Lead Site Assessor and Lead Author. Conducted Phase I ESAs for several properties in Wickliffe, OH. Reviewed environmental documents and produced report based on interviews and site inspections according to the ASTM Standards for Conducting All Appropriate Inquiries and the Standard Practice for Site Assessments: Phase I ESA Process (ASTM E1527-13).

Chemical Manufacturing and Boiler House Demolition, Chicago, IL, Confidential Client (11/2010– 12/2012), Project Manager. Coordinated project from subcontractor procurement through completion. Held weekly status meetings, assisted with permitting, negotiated change orders, and led communications with stakeholders, including community groups, local businesses, local elected representatives, and community church organizations. Demolition activities included numerous aboveground storage tanks (ASTs) used for chemical and petroleum product storage; a coal/ash handling building, including conveyor system; underground tunnels, elevated pipe rack; 15 buildings; a 200-foot smokestack; and on-site crushing of 2,200 tons of concrete. An extensive waste characterization investigation was completed prior to demolition to identify hazardous substances requiring disposal, including PCBs, residual ash, tank residuals, unknown chemicals, petroleum products, resins, and universal wastes. Prior to structure demolition, asbestos and lead paint were abated. Asbestos abatement included transite panels, piping insulation, floor tiles/mastic, air ducts, refractory brick, ceiling tile/adhesive, plaster walls, tank insulation, caulk, structural steel insulation, and thermal system insulation. Mechanical structure demolition was completed using hydraulic breakers and shears. Explosive demolition of the smokestack was successfully completed. Structure basements were either removed and backfilled with suitable material or were left in place following partial demolition to ensure natural groundwater flow.

In Situ Hotspot Remediation, Chicago, IL, Confidential Client (04/2010–12/2011), Project Manager. Coordinated project from design through construction. Developed pre-design investigation, coordinated design, procured subcontractors, held weekly status meetings, assisted with permitting, and led communications with stakeholders, including community groups, local businesses, local elected representatives, and community organizations. Using information obtained during numerous rounds of environmental investigation, Weston performed in situ remediation of eight hotspots impacted with metals. A total of 9,350 cubic yards of soil were treated to reduce concentrations of toxicity characteristic leaching procedure (TCLP) lead below 5 milligrams per liter (mg/L) and TCLP cadmium below 1 mg/L. The in situ treatment process utilized a proprietary chemical stabilization technique using a two-step process: pH adjustment, using lime, then chemical stabilization. The in situ stabilization was achieved using hydraulic excavators to mix the dry chemicals and water into the impacted soil without extending beyond the horizontal extent of the excavation. Treatment verification samples, collected as five-point composites, were collected following treatment to ensure treatment was successful.

Hotspot Remediation/Excavation, Chicago, IL, Confidential Client (04/2010–12/2011), Project Manager. Coordinated project from investigation through construction. Procured subcontractors and disposal facilities, held weekly status meetings, assisted with permitting, and led communications with stakeholders, including community groups, local businesses, local elected representatives, and community organizations. Based on information obtained during numerous rounds of environmental investigation, Weston performed remediation of the following hotspots: historical drum washing hotspot, chromium hotspot, metals hotspot treatment, metals hotspot disposal, tank farm hotspots, and ditch remediation. Following hotspot removals, Weston installed 5,239 linear feet (LF) and 32 precast structures as part of a stormwater management system. Approximately 60 acres of engineered barrier were installed following hotspot removal. In addition, Weston installed 15,782 sf of steel sheet piling as part of the overall environmental remedy.

RCRA Closure Corrective Measures Implementation, Chicago, IL, Confidential Client (01/2007–12/2010), Project Manager. Supervised implementation of corrective measures at an 80-acre former paint manufacturing facility as general contractor. Prepared procurement packages and negotiated subcontracts for the various remedy components, including 16,000 sf of sheet pile containment wall; a groundwater extraction system; the deep dynamic compaction soil stabilization program; soil engineered barriers; over 30 acres of asphalt engineered barriers; installation of over 4,000 LF of storm sewers and drainage structures; and excavation, transportation, and disposal of benzene-impacted soil.



a. Name and Title	b. Years of Experience in Current Classification	Total years of experience					
Herold Hannah, CIH, CSP, Health & Safety Manager	20 (P4)	34					
c Poles and Pesponsibilities as They Polate to the PED							

sidilities as Thev

Responsible for the overall health and safety (H&S) program as it relates to company policies and associated project work. Will be in charge of H&S personnel assigned to specific projects and will provide guidance and resources for specific H&S concerns.

d. Direct or Consultant Employee	e. Physical Location (City, State)
Direct employee of Weston	Pittsburgh, Pennsylvania

Other Relevant Professional Qualifications

Education:

B.S., Biology/Microbiology - University of Pittsburgh

Training/Certifications:

Certified Industrial Hygienist (CIH) (#CP 6854); Certified Safety Professional (CSP) (#14282); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4)

Experience Summary:

34 years of direct experience with safety and occupational health at environmental, construction, remediation, and hazardous waste sites. Actively manages corporate safety program, building a safety culture of hazard recognition, hazard mitigation measures, and best practices resulting in exceptional safety statistics. Manages 34 H&S professionals for a broad range of environmental and construction work. Conducts project planning and execution to ensure hazards are clearly understood and safe work practices are appropriate and effective. Developed/audited more than 150 site-specific H&S programs, including developing federal- and statecompliant specifications for personal protective equipment (PPE), confined space entry, lock-out/tag-out, hazard communication, Hazardous Waste Operations and Emergency Response (HAZWOPER), and construction safety for sites in 20 states. Oversees incident investigations and implements corrective actions across the organization.

Relevant Project Experience

Weston Corporate H&S Officer (03/2015 – Ongoing). Provides program support across all Weston programs/projects and employee support regarding environmental health and safety (EHS). This includes written compliance programs and procedures; development and implementation of training programs; technical review of project-specific safety planning documents (e.g., Accident Prevention Plans [APPs], Health and Safety Plans [HASPs], Activity Hazard Analyses [AHAs]); and technical support and subject matter expertise regarding industrial hygiene and safety. Supports and directs safety for multiple projects and clients. Implements Weston's EHS standards/policies/ procedures. Enforces compliance with internal policies or government laws/regulations. Clearly communicates safety updates/challenges on programs.

USPS EPRRS Contracts, Various Locations, USPS (03/2015-Ongoing), Corporate H&S Officer. Provides H&S expertise at both the corporate and project level on over 5,000 projects. Oversees additional project CIHs and provides interpretations, expert guidance, and approval of delegated work. Additional corporate responsibilities include programmatic consultation, direction, and oversight of Weston's USPS safety regulations and alignment of these regulations with Weston's high standards for H&S to help streamline the program. Ensures OSHA compliance as it relates to health protection/communication regarding asbestos-containing material (ACM), lead-based paint (LBP), and UST projects; preparation of HASPs; H&S-related training; and risk assessment and communication.

Various Remediation Contracts, Multiple Locations, U.S. Department of Defense (DoD) (03/2015– Ongoing), Corporate H&S Officer. Responsible for overall H&S program for multiple DoD contracts at installations nationwide. Indefinite Delivery Indefinite Quantity (IDIQ) contract scopes range from hazardous, toxic, and radioactive waste (HTRW) and Military Munitions Response Program (MMRP) remediation through


construction at secure facilities. Reviews APPs; performs safety audits, ensuring compliance with U.S. Army Corps of Engineers (USACE) safety requirements, OSHA, and other requirements; provides EHS training regarding programs and safety processes for on-site personnel; and mentors Weston Site Safety and Health Officers (SSHOs) for projects under the USACE Omaha District Security, Disaster, Infrastructure Construction (SDIC) and Rapid Disaster Infrastructure programs. Provides oversight for stand-alone contracts such as cleanup at Camp Bonneville, for which he reviewed APPs and performed safety audits. He also provided site-specific training regarding EHS programs and safety process training for workers. Reviewed APPs and provided technical direction and guidance for various sites under a Performance Based Contract at Tinker AFB, FL.

Fuels Programs, Multiple Locations, USACE (03/2015–Ongoing), EHS Program Manager. Primary USACE Special Projects Office contact for all program activities. Task Orders (TOs) include construction with incidental design services for sustainment, restoration, and modernization-funded construction in support of facility infrastructure for petroleum, oil, and lubricants operations. Includes 10 TOs valued at over \$35M and 1 cost plus TO valued at over \$11M. Projects performed at various Continental United States locations, including in the Eastern, Central, Mountain, and Western time zones. Safety support includes confined spaces, work at height, scaffolding, electrical services, Level C and B PPE, and HAZWOPER.

Emergency Response Services Contract, Nationwide, USACE Omaha District (08/2016–08/2021), Corporate Safety Officer. Responsible for overall H&S program for a wide range of activities at Formerly Used Defense Sites (FUDS) and various known or suspected HTRW and MMRP sites. One project involved RA at former Camp Croft where advanced geophysical classification was used to detect anomalies resulting from discarded military munitions, unexploded ordnance (UXO), and other metallic debris, often in remote work locations. Conducted project status checks with on-site SSHO/UXO Safety Officer to proactively address/anticipate work hazards. Directed the development, maintenance, and implementation of the Site Safety and Health Plan and consults with field teams managing hazardous waste during assessments conducted at four operational ranges. Ensured that all field activities were conducted in accordance with military, federal, state, and local requirements regarding environment, safety, and health, as well as Weston's corporate COVID-19 protocols.

Environmental Investigation and Remediation Contracts, DoD Agencies (06/2006–10/2013), Program H&S Manager. Program safety, health, and environment manager for federal IDIQ contracts managed from Mid-Atlantic District. Responsible for development/review of program and site-specific HASPs and oversight of implementation of safety programs. Clients included AFCEE (4P A-E, 4P A-E 08); U.S. Air National Guard (ANG) (Environmental Engineering, Professional, Technical, and Remediation Support Services); U.S. Air Force (USAF) Air Combat Command; Naval Facilities Engineering Systems Command (NAVFAC) Washington (Facilities Planning and Natural/Cultural Resources Management Program Support); U.S. Army Space and Missile Defense Command; and EPA (Emergency and Rapid Response Services).

AFCEE 4P A-E 08, Multiple Sites, Nationwide, AFCEE (01/2006–08/2009), H&S Program Manager/CIH. Responsible for overall H&S program for multi-disciplinary environmental and Architect-Engineer services contract. Led development/review of program and site-specific HASPs and oversight of implementation of safety programs.



a. Name and Title	b. Ye Curr	ears of Experience in ent Classification	Total Years of Experience
Megan Abbott, P.E., Certifying Engineer	3 (P3	3)	13
c. Roles and Responsibilities as They Relate to	the R	FP	1
Responsible for supervising all engineering-related Certifying Engineer is a State of Michigan certified work products are appropriately reviewed and stam	tasks P.E. a ped ar	requiring P.E. sign off and cert and will oversee the engineerin nd will take responsibility for th	ification. The g work. Make sure ne overall effort.
d. Direct or Consultant Employee	е	. Physical Location (City, Sta	te)
Direct employee of Weston	L	Lincolnshire, Illinois	
Other Relevant Professional Qualifications			
Education:			
M.S., Environmental Engineering – Michigan Tech B.S., Chemical Engineering – University of Missou	inolog iri	cical University	
Training/Certifications:			
Professional Engineer (MI #6201063681); (IL #0 Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SH Safety and Health Training Course, OSHA 29 CFR Experience Summary:	62067 ISC, C . 1926	(878); 40-Hour/8-Hour Hazardo OSHA 29 CFR 1910.120(e)(4);	ous Waste Site Training 30-Hour Construction
Over 13 years of broad environmental engineering experience. Worked on a variety of industrial and municipal wastewater treatment system design, upgrade, and construction projects. More than 5 years of experience in groundwater treatment system design, construction support, startup, troubleshooting, and O&M at hazardous and non-hazardous waste sites. Experienced with water quality monitoring for NPDES permit program. More than 5 years of experience preparing and certifying stormwater pollution prevention plans, facility response plans, and SPCC plans for a variety of state, municipal, and private clients. Over 2 years of professional			
Relevant Project Experience			
 Wright-Patterson AFB Per- and Polyfluoroalkyl Substances (PFAS) Investigation and Remediation, OH, USACE Omaha District (07/2021–Ongoing), Engineer. Supporting time-sensitive CERCLA RI and non-time-critical removal actions (NTCRAs) to assess whether drinking water for off-base areas near multiple USAF installations have been affected by past aqueous film-forming foam (AFFF) releases. Prepared an EE/CA to identify the options to mitigate public exposure to groundwater containing PFAS at two sites. As part of the selection of the full-scale remedy, designed an on-site pilot test and procured a packaged system to pilot two pretreatment and four primary treatment media, which were innovatively combined to create the best combination for the water treatment and to minimize O&M costs. The goal of the pilot study is to evaluate the effectiveness and capacities of the primary treatment media to make the most cost-effective and technically sound selection for this site and to determine the need for pretreatment. Prepared a Pilot Study Work Plan to detail operations, maintenance, objectives, and sampling schedule for the pilot system, and coordinated installation of the pilot system. Residential Wells-Holly Road Site, MI, EGLE (01/2018–Ongoing), Engineer. Prepared specifications and 			
design documents for the rehabilitation and augmentation of an Soil Vapor Extraction (SVE) system for treatment of tetrachloroethylene (PCE) and TCE vapors. This included the selection and sourcing of equipment, improved blowers, and piping manifold design. The system rehabilitation/optimization allowed reuse of portions of the historical SVE system that were still functional, and the remaining items were upgraded to minimize the cost impact to the client while mitigating vapor intrusion (VI) concerns.			VE) system for sourcing of equipment, llowed reuse of portions graded to minimize the
Coe's Cleaner Site, Milford, MI, EGLE (06/2016–Ongoing), Engineer. Completed bid review and award recommendation for the O&M contract. Assisted with reviews of groundwater treatment system upgrades, including equipment specifications, alternative treatment methods, and the use of sequestration agents. Since 2005, Weston has conducted site characterization and remediation system O&M oversight services at this groundwater contamination site for EGLE under the Level of Effort (LOE) and Environmental Emergency			



Response (EER) contracts. Both chlorinated and petroleum volatile organic compounds (VOCs) have impacted groundwater from historical releases from former dry cleaner and gasoline station operations.

Tech Town (Former General Motors Property), Dayton, OH, City of Dayton (07/2012–Ongoing), Engineer. Assisted in the design of an SVE and ozone sparge system, including reviewing analytical data, identifying treatment zones, and writing specifications. Contacted interested vendors to discuss the schedule of work and coordinated the distribution of specifications, drawings, and bidding information.

USPS EPRRS Contracts, Various Locations, USPS (07/2012–Ongoing), Engineer. Completed initial site walkthroughs to identify wall, ceiling, and outdoor structure damage that required LBP remediation. Coordinated Scopes of Work (SOWs) with the facilities. On-site for the duration of LBP scraping, structure repair, and repainting. Completed final walkthrough inspections of the facilities to verify completion of the projects in accordance with lead O&M plans. Conducted field supervision of all AST removal activities. Responsible for visual inspections of vaults for signs of leakage or contamination and then for subsequent restoration. Oversaw backfilling of clean fill and surface restoration with asphalt.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (07/2012–Ongoing), Engineer. Provided field engineering for the startup operations of a groundwater extraction and treatment system. The extraction system consisted of 17 pneumatic extraction wells. The groundwater treatment system consisted of particulate filtration, iron removal units, air strippers, activated carbon, activated alumina, associated backwash, and flocculation systems. Responsibilities included troubleshooting system operations, optimizing use of chemicals, establishing O&M and sampling procedures, performing routine sampling, and establishing a system operations database. Certified Class K Operator of the groundwater treatment plant responsible for normal O&M, repairs, monthly reporting, and NPDES sampling and reporting. Identified inefficiencies in the treatment system process and designed and implemented solutions. Prepared an O&M manual to detail normal maintenance activities and the required frequency.

UMB Bank Property: Phase I ESA & Phase II Investigation, Kirkwood, MO, Confidential Client (06/2021–02/2022), Engineer. Completed the Phase 1 ESA site visit, building inspection, and interviews. Identified locations of potential releases of hazardous materials to the environment. Identified locations of previous soil borings and potential sources of contamination. Assisted in groundwater monitoring and soil sample collection as part of the Phase II Investigation. Performed field quality control (QC) for Phase II activities.

Philadelphia Street Site, Detroit, MI, EGLE (04/2017–04/2020), Engineer. Reviewed bid specifications and contract documents for clarity and alignment to technical specifics. Weston prepared the specifications using DCSPEC, assisted the State during the advertisement and bidding process, coordinated with the selected trade contractor (TC), and conducted oversight of the excavation, transportation, and disposal of petroleum-contaminated soil from the Philadelphia Street site (a former leaking UST [LUST] site). The excavation activities were conducted to achieve the EGLE goal of removing petroleum-impacted source area soils to allow for redevelopment of the site. Weston completed a site investigation characterizing soil and groundwater contamination to complete the biddable specifications and develop quantities of material requiring removal.

Mack Avenue Site, Detroit, MI, EGLE (04/2017–04/2018), Engineer. Reviewed and approved bid specifications and contract documents. Weston prepared biddable specifications using DCSPEC, assisted the State during the advertisement and bidding process, coordinated with the selected TC, and conducted oversight of the excavation, transportation, and disposal of petroleum-contaminated soil from the Mack Avenue site (a former LUST site). Weston completed a site investigation characterizing soil and groundwater contamination to complete the biddable specifications and develop quantities of material requiring removal. Weston conducted oversight of the TC during the soil excavation and disposal activities and conducted verification of soil remediation (VSR) sampling from the excavation prior to backfilling. The remedial activities successfully removed the mass of impacted soil and, therefore, eliminated any potential risks to human health or the environment.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Kathleen Mooney, Quality Manager	20 (P4)	36

c. Roles and Responsibilities as They Relate to the RFP

Responsible for overall project quality, including adherence to applicable State of Michigan and/or federal rules and regulations. Will oversee and/or facilitate review of project deliverables, project work, and project staff to ensure that a high level of quality is maintained throughout the duration of the project.

d. Direct or Consultant Employee	e. Physical Location (City, State)
Direct employee of Weston	Okemos, Michigan

Other Relevant Professional Qualifications

Education:

M.S., Environmental Science - University of New Haven

B.S., Biology – Michigan State University

Training/Certifications:

Advanced Environmental Management Systems Auditor Course, ANSI-RAB accredited training; OHSA 18001 Certified Auditor (#000012214485); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4); 10-Hour Construction Safety Training, OSHA 29 CFR 1926; Hazardous Waste Management and Shipping for Environmental Professionals, 40 CFR 265.16

Experience Summary:

Over 36 years of environmental consulting experience including environmental and H&S compliance, due diligence site investigations, EPA Superfund and RCRA programs, H&S oversight, contractor oversight and litigation support, and also experienced in indoor air quality investigations in office/industrial environments, including distribution/evaluation of questionnaires; examination and assessment of ventilation systems; and sampling for common indoor air contaminants, including bioaerosols, formaldehyde, respirable particulate, carbon monoxide, carbon dioxide, and VOCs. Experienced in all SOW areas Weston is pursuing under this contract including litigation support (e.g., Line 5). Examples include emergency response investigations/site characterizations, development/implementation of cleanup strategies/sampling plans, cost monitoring/ estimating, and technical oversight of contractors and development/implementation of site safety plans. Expertise in waste management and air permitting.

Relevant Project Experience

Dry Cleaner Facility (Snedicor's Cleaners), Howell, MI, EGLE (03/2019–Ongoing), Technical/Quality Support. Provides technical and QC support for waste disposal issues identified with listed hazardous waste and characteristically hazardous waste. Advises project manager on the applicability of the EPA "contained out" policy.

Residential Wells-Holly Road Site, Brighton, MI, EGLE (01/2018–Ongoing), Technical Support. Provides technical support and regulatory quality review for waste disposal issues identified with listed hazardous waste and characteristically hazardous waste. Advises project manager on the applicability of the EPA "contained out" policy.

Tech Town (Former General Motors Property), Dayton, OH, City of Dayton (03/2012–Ongoing), Technical Expert. Provides technical support for RCRA-related waste storage and disposal for the ongoing redevelopment project. Conducts quality reviews of current and past waste disposal documentation for verification of historical regulatory compliance. Quality review of waste disposal plan preparation.

Former Buck Mine Site, Caspian, MI, EGLE (04/2010–Ongoing), Technical Support. Provides quality reviews of project planning documentation and technical support for H&S and waste disposal issues identified by field personnel at the site.

USPS EPRRS Contracts, Various Locations, USPS (06/2006–Ongoing), Site Manager/Quality Manager. Conducts preliminary desk top reviews for sites based on USPS personnel initial calls. Reviews final work plans



and assists with development of SOW for initial site investigation to gather information for any follow-up investigations. Reviews work plans, HASPs, and QC plans for follow-up investigations. Examples of USPS calls include identification of a UST previously unknown at a vehicle maintenance facility, indoor air quality assessments at a USPS location with parking garage below, and odor complaints.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (01/1998–Ongoing), Technical Support. Provided technical support to evaluate waste disposal options and evaluated applicable regulatory reporting requirements identified during quality review of the design.

Superior Lubricants Phase I and II ESA and BEA Support, Milan, MI, Confidential Client (11/2017–07/2019), Technical Expert. Supported negotiations during a real estate transaction, including quality review of documents for a Phase I ESA, a limited Phase II ESA, preparation of a BEA, and a Due Care Plan. Also provided negotiation support and guidance in transferring a Covenant Not to Sue from the seller to the buyer. Supported the design of the site investigation prior to property transfer. Provided quality review of analytical results from the investigation and supported preparation of documentation to provide liability protection for new property owners.

Air Compliance Support, Lansing, MI, Magna DexSys (12/2014–12/2016), Project Manager/Technical Lead. Provided compliance support and QC reviews for automotive supplier in Lansing, MI, including preparing air permit modifications and renewable operating permit applications.

Targeted Brownfield Assessment (TBA) Projects, Multiple Locations, EPA TBA Program (07/2009–10/2014), Brownfield Program Coordinator and Quality Manager. Managed the EPA contract for investigations of TBA projects for Region 5. For the first 3 years of the program, managed investigations of 41 properties, including management of funds under the American Recovery and Reinvestment Act (ARRA) program for 7 sites. Investigations included Phase I ESAs in accordance with the EPA all appropriate inquiry standard, Phase II investigations for soil and groundwater contamination, EE/CA assessments, remediation plans, support for entry into the state's voluntary protection program, project design and engineering services, and project assessments for redevelopment. Quality Manager for the program.

Baseline Soil Sampling Effort at Dredge Material Disposal Facility, MI, Saginaw County Department of Public Works (08/2008–11/2008), Project Manager. Managed an expedited baseline soil sampling project to provide baseline soil sampling information prior to placement of dredged materials. Conducted quality review of the soil sampling plan that was approved by EGLE with no comments or changes required. Completed the sampling plan (with approval) and the sampling within 2 weeks of receipt of approval for the project.

Noise and Vibration Study in Accordance with U.S. Department of Transportation (DOT) and National Environmental Policy Act (NEPA) Requirements, Detroit, MI, Detroit International Bridge Company (09/2003–11/2003), Project Manager and Quality Manager. Noise study of truck traffic at the vehicle inspection area that serves U.S. Customs between Canada and the U.S. Detroit International Bridge. A sound wall of various heights was already in place between the client's property and the community. The purpose of the study was to establish baseline noise and vibration conditions and compare the results to relevant criteria. Noise and/or vibration measurements were conducted at 11 sites, and 300 octave-band (8 hertz to 16 kilohertz) frequency spectra were collected. Ten measurement sites were selected to be representative of residential locations and/or to determine the effectiveness of the sound wall. Ground-borne vibration was measured at three locations. Results of the noise and vibration study were presented in a letter report to the client and also presented at a community meeting organized by the client.

H&S Compliance and Management System Review, Detroit, MI, City of Detroit Water and Sewerage Department (DWSD) (09/2000–09/2003), Project Manager and Quality Manager. Managed a 2-year contract to provide H&S services to the DWSD. The contract included conducting physical audits and preparing written audit reports for 48 DWSD facilities, providing updates on emerging H&S regulations that apply to DWSD, conducting an evaluation of the DWSD H&S management system, reviewing and evaluating various DWSD H&S programs and providing recommendations for improvement and updating or revising programs. Provided support for closure of audit findings and managed subcontractors to provide electrical safety training for over 500 DWSD employees.



a. Name and Title	b. Year Classif	s of Experience in Current ication	Total Years of Experience
Chris Douglas, Project Manager	23 (P3)		31
c. Roles and Responsibilities as They Relate	e to the	RFP	
Responsible for the successful planning, execution, and completion of assigned projects. Directs project team and manages scope, schedule, and budget, aligned with client needs and achievement of project objectives. Provides direct and ongoing communication with State Project Manager, at a frequency supportive of timely decision-making and paced according to work intensity.			
d. Direct or Consultant Employee		e. Physical Location (City, Sta	te)
Direct employee of Weston		Okemos, Michigan	
Other Relevant Professional Qualifications:			
Education:			
B.S., Biology – Western Michigan University			
Training/Certifications:			
40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4); 10-Hour Construction Safety Training, OSHA 29 CFR 1926; USACE Wetland Delineation Certification Training Program, Environmental Technology Center			
Experience Summary:			
Over 31 years of experience successfully managing large and small state-funded sites involving RI, FS, remedial design and implementation, demolition, wetland delineation and permitting, endangered species, VI evaluation and mitigation, and long-term monitoring (LTM). Served in this role on 15 projects in the last 5 years. Extensive experience conducting multiple aspects of environmental field work and project management (e.g., UST removals, drilling, demolition, soil excavation, wetland delineation, endangered species surveys, soil and groundwater sampling, waste characterization and disposal, and project coordination and oversight). Experience working on Part 213 and Part 201 sites as well as several Superfund (CERCLA) sites in the State of Michigan. Services provided cover all of the SOWs highlighted in Appendix B as well as litigation support (Line 5 site).			
Relevant Project Experience:			
Dry Cleaner Facility (Snedicor's Cleaners), Howell, MI, EGLE (03/2019–Ongoing), Project Manager. Managing the investigation of a former dry cleaner site that released cleaning solvents into the soil and groundwater. The release has resulted in high levels of PCE that are present beneath and adjacent to the former dry cleaner building. Initial site investigations determined the presence of contamination directly beneath the dry cleaner building and adjacent buildings with operating businesses. A VI investigation was conducted that determined high levels of PCE vapors were entering the buildings. Subsequently, two vapor mitigation systems were installed in two of the adjacent buildings to address exposure risks. Weston coordinated the installation of the systems and is currently conducting O&M monitoring of the systems. In addition to the VI issues, it was also determined that groundwater was contaminated with PCE. Currently managing the completion of investigation			

Former U.S. Aviex Site, Niles, MI, EGLE (04/2003–Ongoing), Project Manager. Managing the investigation and evaluation of a 1,4-dioxane groundwater plume including bi-annual groundwater sampling, tracking of the plume, and the recent completion of a groundwater model by an EGLE requested subcontractor. Also managed the completion of soil and soil gas investigation near and around a residence adjacent to the Site that exhibited VI risks. Also completed an RI report for the VI investigation that was submitted to EGLE Superfund Division and EPA. The RI data will be used to complete an FS and will be used to justify procurement of funding for cleanup of the source area presenting the VI risk. Other activities completed at the site included ozone bench-testing, air sparge pilot testing, and managed the design and implementation of an ozone/sparge system to remediate chlorinated hydrocarbons and diethyl-ether at a former manufacturing facility. System performance monitoring included soil-gas sampling to monitor treatment system and evaluate the potential for VI. Also prepared a ROD

monitoring wells were recently completed. Sampling and evaluation of the groundwater plume is ongoing.



Amendment and supervised evaluation of post-remediation groundwater data against state groundwater screening levels to evaluate VI potential from the chlorinated groundwater plume and potential for natural attenuation of the plume.

Chapel Landfill Site, White Lake, MI, EGLE (05/2018–Ongoing), Project Manager. Weston performed a site investigation of the former landfill to determine whether soil/groundwater contamination and/or soil-gas contamination was present at harmful concentrations. Weston completed an initial site investigation of the former landfill, including soil and groundwater sampling and installation of groundwater monitoring wells and soil vapor monitoring wells. Several deep soil borings were completed using roto-sonic drilling techniques to determine the site stratigraphy and to collect soil and groundwater samples. Additionally, direct-push technology (DPT) was used to complete shallow soil and groundwater sampling. A hollow-stem auger (HSA) rig was used to install the groundwater/soil vapor monitoring wells and passive methane vents. The site investigation activities were successful in obtaining preliminary site characterization data, and the information will be used to further assess the site and the surrounding area to determine the source of contamination detected in the residential wells and to evaluate methane migration. Project management duties included coordination and setup of the project via discussions with the client to develop an SOW designed to meet the EGLE objectives. Project management duties also included overseeing preparing a work plan and site-specific HASP, procuring drilling subcontractors, scheduling appropriate Weston field staff, and managing the successful completion of the site investigation activities. Weston was able to successfully complete the project work described above within a limited budget and accelerated schedule.

Residential Wells-Holly Road Site, Brighton, MI, EGLE (01/2018–Ongoing), Project Manager. Managing the oversight of a groundwater treatment system that was installed to intercept a groundwater plume before it reaches a nearby school. Activities include coordinating with the O&M contractor, reviewing invoices and monthly reports, and preparing NPDES reports. In addition, Weston is also monitoring indoor air quality and sub-slab vapor concentrations beneath the school to evaluate potential exposure risks. Additional activities have also included VI evaluation of numerous residential homes and the installation of multiple vapor mitigation systems. O&M of the systems and residences is ongoing. Weston also designed and installed an SVE system at the location of the release and conducted oversight of the operation and shutdown of the system. Additional evaluation of the system and remaining soil contamination is ongoing.

Coe's Cleaner Site, Milford, MI, EGLE (06/2016–Ongoing), Project Manager. Weston has been providing project management and oversight services to the State of Michigan on this project since 2006. Duties have included procurement of O&M TCs to maintain the treatment system and oversight of TCs. Additional activities included multiple phases of site investigations (soil and groundwater sampling, monitoring well installations, laser-induced fluorescence [LIF] investigation) completed to locate the source of the groundwater contamination. High concentrations of chlorinated solvents in the soil near the former dry cleaner location led to a VI investigation of nearby buildings. Sub-slab and indoor air vapor samples were collected to evaluate the VI pathway. Results indicated a potential VI risk existed that required additional actions. Soil and groundwater investigations were conducted to delineate the original dry cleaner source material. DPT soil borings were completed using Membrane Interface Hydraulic Profiling Tool (MiHPT) to obtain vertical profiling in the source area. HSA drilling was completed to install SVE test wells and additional soil vapor monitoring points. In June 2022, Weston coordinated and completed an SVE pilot test in the source area to collect data to determine whether SVE was a viable solution to address remaining source area contamination that is presenting a VI risk. The results of the study indicated that site conditions were favorable for SVE.

Velsicol Chemical Company Superfund Site, St. Louis, MI, EGLE Superfund Section (01/2014–Ongoing), Project Manager. Managed the project through completion of the RI and FS phases of the project. Completed multiple phases of very complex RI activities on and around the 52-acre site, including soil, surface water, sediment, nonaqueous phase liquid (NAPL), and groundwater investigations (including Level B and C work) to determine the extent of contaminants. Chemicals previously manufactured at the site included various pesticides and flame retardants (e.g., dichlorodiphenyltrichloroethane [DDT], polybrominated biphenyl [PBB], hexabromobenzene [HBB], and dibromochloropropane [DBCP]) and low-level radioactive compounds. The RI data were collected to aid preparation of the FS, and the Proposed Plan (PP) ultimately led to the signing of the



Record of Decision (ROD). Coordinated efforts between multiple stakeholders. Attended and presented multiple project summaries and various presentations at the monthly public meetings.

Enbridge Oil Spill Response, Marshall, MI, EGLE (10/2011–Ongoing), Project Manager. Managing closure of the project for the State of Michigan following response actions that Enbridge Energy has undertaken to clean up the Kalamazoo River from the July 2010 crude oil spill. Activities completed for the State of Michigan include performing sediment evaluations (screening for the presence of residual oil), conducting overbank investigations of wetlands and floodplains to identify remaining areas of impact from the oil spill, reviewing closure reports prepared by Enbridge Energy, and assisting the state with those evaluations. Also responsible for project-related records management, including uploading relevant documents to the State of Michigan's database for electronic document storage.

Former Buck Mine Site, Caspian, MI, EGLE (04/2010–Ongoing), Project Biologist. Assisted the Weston project manager with evaluation of beaver control technologies to maintain the site drainage and control structures. Also provided reviews of surface water quality data related to the mine discharge and the effectiveness of the leachate settling ponds. Evaluations included effectiveness of meeting surface water discharge requirements and adherence to Rule 57 water quality standards.

USPS EPRRS Contracts, Various Locations, USPS (06/2006–Ongoing), Project Manager. Assisted the program manager with multiple Michigan USPS facilities requiring various response actions. Tasks included coordination of contractors and Weston field personnel to complete the assigned tasks. Budget tracking, subcontracting, and SOW development were required for successful completion of the work. Also responsible for coordinating with USPS personnel throughout the project duration. Responsibilities included final reporting, subcontractor invoice review, and Weston invoicing and follow-up.

Long-Term Project Monitoring, Pine River-Velsicol Chemical Company Superfund Site, St. Louis, MI, EGLE Superfund Section (08/2001–Ongoing), Project Manager. Managed the LTM portion of the project. Activities consisted of completion of a baseline study of contaminants in the sediments, surface water, and biota downstream of the site in the Pine River. Managing and participated in the various laboratories (including Contract Laboratory Program laboratories); collection of surface water samples; collection of water quality data; floodplain sample collection; floodplain mapping; biota identification, collection, and sampling (macro-invertebrates, fish, small mammals [mice shrews, mink, muskrat], and birds/eggs); and coordination of several subcontractors to complete the human health risk assessments (HHRAs) and ecological risk assessments (ERAs). Prepared and reviewed work plans, sampling plans, and the QAPP.

Philadelphia Street Site, Detroit, MI, EGLE (04/2017–04/2020), Project Manager. Provided project management support, including preparing a site investigation work plan, assisting the State of Michigan with the bidding process to procure a qualified TC to complete the soil removal activities, and completing project closeout activities. Other duties included coordinating with the City of Detroit and EGLE, obtaining appropriate permits, and conducting oversight of the TC, including reviewing project plans, invoices, and final closeout documents. Weston was able to complete the project under an accelerated schedule and within the budget to meet EGLE objectives. Weston prepared biddable specifications using DCSPEC, coordinated with the selected TC, and conducted oversight of the excavation, transportation, and disposal of petroleum-contaminated soil from the Philadelphia Street site (a former LUST site). Weston completed a site investigation characterizing soil and groundwater contamination to complete the biddable specifications and determined the quantities of material requiring removal. Weston also conducted VSR sampling from the excavation prior to backfilling.

Village of Douglas Site, Douglas, MI, EGLE (03/2012–01/2020), Project Biologist. Assisted the Weston project manager with review and evaluation of groundwater and surface water data. A groundwater plume impacted with chlorinated compounds was determined to be discharging to a nearby creek that ultimately discharged to the Kalamazoo River. Pore-water and surface water samples were collected to evaluate the impact to the surface water body. Completed reviews of the data and helped determine the impact of the discharge of contamination to the surface water.

Mack Avenue Site, Detroit, MI, EGLE (04/2017–04/2018), Project Manager. Provided project management support including preparation of a site investigation work plan, assisting the State of Michigan with the bidding



process to procure a qualified TC to complete the soil removal activities, and completion of project closeout activities. Other duties included coordination with the City of Detroit and EGLE, obtaining appropriate permits, oversight of the TC including review of project plans, invoices, and final closeout documents. Weston was able to complete the project under an accelerated schedule and within the budget to meet EGLE objectives. Weston prepared biddable specifications using DCSPEC, assisted the State of Michigan during the advertisement and bidding process, coordinated with the selected TC, and conducted oversight of the excavation, transportation, and disposal of petroleum-contaminated soil from the Mack Avenue Site (a former LUST site). Weston completed a site investigation characterizing soil and groundwater contamination for use in completion of the biddable specifications and development of quantities of material requiring removal. Weston conducted oversight of the TC during the soil excavation and disposal activities. Weston also conducted the required VSR sampling from the excavation.

Former Speed E Mart Site, Milford, MI, EGLE (03/2013–Ongoing), Project Manager. Responsible for managing the project during all phases of work. Weston conducted several site investigations that consisted of installing soil borings and monitoring wells to define the extent of contamination. Weston also completed an FS that presented several options to clean up the soil and groundwater contamination. The state ultimately selected monitored natural attenuation (MNA). Weston conducted the monitoring quarterly for several years and completed a groundwater model (BIOSCREEN) that indicated natural attenuation was occurring and that the groundwater plume was relatively stable. Recently, Weston was tasked with completing a VI investigation that consisted of installing 10 soil gas monitoring wells on and around the perimeter of the site. The wells were installed to determine whether a VI risk was present that could impact nearby buildings and businesses. The VI evaluation is currently ongoing, and when completed the soil vapor wells and existing groundwater monitoring wells will be abandoned prior to site closeout.

Targeted Brownfields Assessment (TBA) Management, Multiple Projects, Multiple Locations, EPA (10/2012–05/2013), Project Manager. Managed several TBA projects for brownfield sites located in the U.S. Project activities included completion of Phase I ESAs, site investigations, soil and groundwater sampling, asbestos building assessments, and reporting. Completion of the projects required coordination and communication between the multiple stakeholders (e.g., property owner, local unit of government, and EPA).

Manistique River and Harbor Sediment Investigation, Manistique, MI, EPA Great Lakes National Program Office (05/2010–12/2012), Project Manager. Coordinated and conducted sediment sampling activities in the Manistique River and adjacent harbor to determine the extent of sediment contamination with PCBs. Field activities included sediment sampling (coring) in the harbor in deeper water using an EPA research vessel and sediment sampling using smaller vessels in the shallow river areas. Activities included processing sediment cores, collecting samples for laboratory analysis, and submitting samples for analysis through the Contract Laboratory Program.

Soil and Sediment Removal Oversight, Enbridge Oil Spill, Marshall, MI, EGLE (10/2010), Field Team Leader/Biologist. Provided oversight of soil and sediment removal activities along Talmadge Creek near the release area and evaluated site restoration activities.

Sediment Sampling Investigation/Historical Land Use Assessment, Midwest Refinery, Alma, MI, EGLE (01/2004–10/2007), Project Manager. Conducted several phases of sediment sampling investigations and researched historical land use to assess the contaminant concentrations in the Pine River above and below the former Midwest Refinery site. Performed project management and conducted the sediment sampling field work, including processing of the sediment cores and submittal to laboratories for chemical analysis. Toxicity testing was completed to determine the relative toxicity of the in situ sediments and to determine whether cleanup and/or treatment were necessary.

Biological Assessment and Work Plans, Bay Harbor Cement Kiln Dust Leachate Site, Petoskey, MI, EPA Region 5 Superfund Technical Assessment and Response Team (START) (06/2005–12/2005), Project Biologist. Assisted with reviews of biological assessments and work plans prepared by the potentially responsible party (PRP) to evaluate impacts to the aquatic ecosystem of Little Traverse Bay caused by the release of cement kiln dust leachate into Lake Michigan.



UST Removal, Multiple Locations, MI, DTMB (09/2002–12/2005), Project Manager. Prepared preliminary work plans, file reviews, and RFP documents for 10 UST removal sites. Selected qualified consultants based on technical approach and evaluation of cost proposals. Performed oversight of the preparation of bid specifications and selection of TCs to perform the UST removals. Provided oversight of both the qualified consultants and TCs during the project, including field work, report preparation, invoicing, and H&S requirements.

Wetland Delineation/Delineation Report, Lansing, MI, Delta Township (06/2005–08/2005), Project Biologist. Conducted delineation of wetlands on a 28-acre site and prepared a wetland delineation report. Successfully requested and negotiated a Level 3 Wetland Assessment with the State of Michigan to verify the absence of regulated wetlands on the parcel.

Wetland Delineation and Permitting, Former Stanley Tool Site, Fowlerville, MI (02/2003–08/2004), Project Biologist. Conducted wetland delineation of a 20-acre site, completed a wetland delineation report, and assisted with the wetland permitting process to obtain a wetland permit for cleanup of the site. Performed a review of an endangered species survey (conducted by a subcontractor) for Indiana bats at the site.

Wetland and Floodplain Delineation, Edgewater Site, Benton Harbor/St. Joseph, MI, EGLE (05/2000–12/2001), Project Manager. Conducted wetland and floodplain delineation of a 40-acre site located on the Paw Paw River; prepared and obtained a wetland permit for the City of St. Joseph to develop the site (which included filling a portion of the wetlands and floodplains). Performed an endangered species survey and report for plant species (swamp rose mallow).



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Michelle Bakkila, Project Manager	15 (P3)	29
c. Roles and Responsibilities as They Relate to	the RFP	
Responsible for the successful planning, execution, and completion of assigned projects. Directs project team and manages scope, schedule, and budget, aligned with client needs and achievement of project objectives. Provides direct and ongoing communication with State Project Manager, at a frequency supportive of timely decision-making and paced according to work intensity.		
d. Direct or Consultant Employee	e. Physical Location (City, Sta	ate)
Direct employee of Weston	Houghton, Michigan	
Other Relevant Professional Qualifications:		
Education:		
B.S., Environmental Engineering – Michigan Tech	nological University	
Training/Certifications:		
40-Hour/8-Hour Hazardous Waste Site Training Co 29 CFR 1910.120(e)(4); 10-Hour Construction Safe	ourse, OSHA 29 CFR 1910.120(e)(3) ety Training, OSHA 29 CFR 1926); 8-Hour SHSC, OSHA
Experience Summary:		
as project manager on over 18 projects in the last 10 years. Responsible for managing, conducting, and overseeing operation and monitoring for several types of RD, construction, O&M, and performance effectiveness projects. Successfully evaluated and deployed various remedial technologies, including SVE, bioventing, air sparge and ozone sparging, groundwater extraction coupled with treatment of fluids prior to discharge, and MNA. Extensive work evaluating existing remedy performance and regulatory compliance as well as conducting multiple aspects of field investigation (e.g., various drilling methods, soil, soil-gas, indoor air and groundwater sampling, and pilot testing). Highly skilled technical resource supporting other projects, as		
Relevant Project Experience:		
Coe's Cleaner Site, Milford, MI, EGLE (06/2016–Ongoing), Technical Support. Technical lead for SVE pilot study, including review of soil-gas investigation results and site geology to determine pilot study extraction well and monitoring well locations. Assisted with pilot test equipment selection and work plan preparation. Participated in field oversight for pilot test data collection and preparation of summary report and recommendations for full-scale application.		
 Tech Town (Former GM Property), Dayton, OH, City of Dayton (03/2012–Ongoing), Project Manager/ Technical Lead. Project Manager and technical lead for soil and groundwater remediation activities in support of No Further Action (NFA) determination. Remedy includes VI mitigation measures (vapor barriers and passive venting), ozone sparging, and SVE in addition to engineering and institutional controls to mitigate risk and facilitate site reuse. Worked closely with the City's project manager and new landowner to facilitate land redevelopment. Former Buck Mine Site, Caspian, MI, EGLE (04/2010–Ongoing), Project Manager/Engineer. Project 		
was a complex of interconnected iron mines that operated for roughly 60 years. Manages maintenance and		

was a complex of interconnected iron mines that operated for roughly 60 years. Manages maintenance and monitoring for a passive interim remedial system, which contains and diverts the water emanating from the waste rock pile using treatment ponds to protect the adjacent Iron River from precipitate formation. Manages Weston field staff and subcontractors responsible for water quality monitoring, including field inspections, field sample collection, flow measurement, identification of system enhancements, and technical reporting.

USPS EPRRS Contracts, Various Locations (including Sites in Michigan), USPS (06/2006–Ongoing), Subcontractor Oversight. Visits active post office locations to obtain photographic documentation of existing conditions in support of bid solicitation for lead paint and asbestos abatement. Conducts subcontractor oversight during lead paint abatement. Coordinates work with post office staff to minimize disruptions, communicates



H&S concerns, and enforces applicable protocols to ensure protection of employees during abatement actions. Obtains photographic documentation of completed projects.

Village of Douglas Site, Douglas, MI, EGLE (03/2012–01/2020), Project Manager. Project Manager and technical resource for the investigation and remediation of a large, chlorinated hydrocarbon plume resulting from a historical release at a manufacturing facility. Investigation included use of MiHPT in the source area to correlate residual soil impact with geology to improve the RD. Conduced off-site investigation to evaluate plume discharge to surface water, including surface water, pore water, and sediment sampling. Performed technical review of initial pilot testing and design data. Responsible for O&M oversight of an air sparge/SVE system that operated from 2006 to 2013. Evaluated natural attenuation of the downgradient plume and potential enhanced bioremediation options.

Former U.S. Aviex Site, Niles, MI, EGLE (04/2003–Ongoing), Project Engineer. Reviewed historical site data, performed ozone bench-testing, performed air sparge pilot testing, and assisted with the design and implementation of an ozone/sparge system to remediate chlorinated hydrocarbons and diethyl-ether at a former manufacturing facility. System performance monitoring included soil-gas sampling to monitor treatment system and evaluate the potential for VI. Prepared a ROD Amendment. Conducted an evaluation of post-remediation groundwater data against state groundwater screening levels to evaluate VI potential from the chlorinated groundwater plume and potential for natural attenuation of the plume.

Ford Transmission Plant, Livonia, MI, EGLE (07/2019–Ongoing), Senior Project Manager. Served as senior project manager coordinating resources to develop a Conceptual Site Model and comprehensive groundwater flow and transport model for a vinyl chloride plume emanating from this industrial facility into an adjacent residential neighborhood. Coordinated with the responsible party's consultant to evaluate applicable groundwater and soil gas data. Modeling results were used to support EGLE's request for additional responsible-party-investigation of the shallow preferential flow pathways.

Manufactured Gas Plant (MGP) Site Investigation and Remedial Action Assessment, Former Iron Mountain MGP Site, MI, EGLE (06/2018–06/2021), Project Manager. Reviewed historical documents to determine the type and location of MGP operations at an orphaned MGP site. Developed a conceptual site model (CSM) to guide the investigation. Procured and managed direct push, sonic drilling, waste disposal, and geophysical survey subcontractors. Developed a phased investigation plan tailored to the budget and access limitations. Confirmed soil and groundwater impact from VOCs, semivolatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), metals, ammonia, and cyanide. Evaluated potential exposure pathways and developed feasible remedial alternatives and cost estimates for addressing the risk identified from soil, groundwater, and NAPL impact.

Former Manufacturing Facility Investigation and Interim Remedial Response, Lexington, TN, Confidential Client (11/2010–Ongoing), Project Manager/Technical Support. Response activities include soil, sediment, surface water, groundwater, soil vapor, indoor air, and ambient air sampling. Coordinates project teams and subcontractors. Provides community relations support and access coordination. Supports the design, installation, and operation of ozone sparge and SVE systems. Performs data evaluation to determine system effectiveness and ensure compliance with regulatory requirements. Maintains communication with regulatory agency on project status and progress. Responsible for proposal writing, cost estimating, budget tracking, and project profitability. Responsible for report writing (various technical memoranda, RI report, FFS, preliminary design report); preparation of technical specifications for system construction and installation; and preparation of a CSM for the site (including modeling) and a RAP. Designed and implementing two VI investigations for a chlorinated volatile organic compound (CVOC) plume, which included soil-gas, sub-slab, indoor air, and ambient air sampling in a residential neighborhood and operating industrial facility. Successfully negotiated a monitoring-only approach with the regulatory agency following completion of the interim remediation.

Vapor Intrusion Investigation – Multiple Source Chlorinated Hydrocarbon Plume, Charlevoix, MI, EPA (10/2012–10/2013), Field Lead. Developed investigation SOW with input from multiple stakeholders, including federal client and state representatives. Supervised the field effort, which included public meeting participation. Large-scale VI investigation included mobile laboratory support from the EPA Trace Atmospheric Gas Analyzer field team. Performed subcontractor procurement and provided access coordination support. Supervised field



oversight of Weston staff and subcontractors, including scheduling access to residences for indoor air and subslab sampling.

Soil Vapor Extraction System Evaluation, Spartan Chemical Superfund Project, Wyoming, MI, EGLE (10/2005–01/2010), Project Engineer. Reviewed historical operation and maintenance data for a soil vapor extraction system with catalytic oxidizer and acid gas scrubber to evaluate system effectiveness. Provided system modification recommendations for operation and maintenance cost reductions. Performed Operation and Maintenance oversight. Collected and analyzed soil gas data using multiple collection techniques; data was later used by the State of Michigan in developing a vapor intrusion sampling guidance document. Developed Proposed Plan and ROD amendment.

Soil Vapor Extraction System Implementation and Monitoring, Dexter, MI, Confidential Client (10/2005–10/2009), Project Engineer. Reviewed historical groundwater and soil sampling data to estimate vapor phase treatment requirements for implementation of SVE to treat chlorinated hydrocarbon soil contamination. Coordinated system improvements and addition of GAC for vapor treatment. Evaluated carbon disposal options, including land ban restrictions. Evaluated air sampling data for compliance with air emission requirements.

Regulatory Compliance Assistance, L'Anse, MI, L'Anse Warden Electric Company, LLC (01/2008–07/2008), Project Engineer. Prepared Permit to Install and Renewable Operating Permit applications for biomass power plant. Developed permit-required plans with input from facility personnel, including Preventive Maintenance and Malfunction Abatement Plan, Fuel Procurement and Monitoring Plan, Compliance Assurance Monitoring Plan, and Fugitive Emission Control Plan. Developed an F-Factor sampling rationale and Fuel Sampling Plan to assist with demonstrating permit compliance.

Soil Vapor Extraction/Air Sparge System Installation, Kalkaska County, MI, EGLE (06/2004–12/2005), Project Engineer. Provided project management services and assisted with design review and contractor oversight for an air sparge/SVE system installation. Performed O&M oversight during 6-month startup period, including review of indoor air data.

Remedial Activities Support, Kingsford, MI, EGLE (07/2002–09/2005), Project Engineer. Reviewed RI Report and prepared site HASP for former wooden automobile parts manufacturing facility. Review included an evaluation of biodegradation processes resulting in the production of methane in subsurface soil and groundwater at the site. Primary constituents of concern included methane gas, methylphenols, formaldehyde, acetic acid, PAHs, and several metals.

Remedial Options Feasibility Evaluation, Mohawk, MI, EGLE (05/2002–08/2005), Project Engineer. Conducted an evaluation of potential remedial options to address a home heating fuel release impacting groundwater, surface soil, and subsurface soil. Potential remedial options included natural attenuation, enhanced bioremediation using an oxygen-releasing compound, and chemical oxidation. Project work also included review of indoor air sampling results, field measurement of dissolved oxygen, interim treatment system monitoring, and permit compliance sampling.

Soil Vapor Extraction Pilot Study/Design, Eben Junction, MI, EGLE (05/2002–05/2005), Project Engineer. Reviewed historical site data and prepared a work plan for implementation of an SVE pilot study to address free product at the site. Completed pilot study activities and prepared a summary report with recommendations for full-scale system implementation. Prepared preliminary design and biddable specifications for full-scale implementation.

Asbestos and Hazardous Materials Abatement and Building Demolition, Ahmeek, MI, EGLE (09/2002–02/2003), Project Engineer. Reviewed contractor and professional services contractor planning documents, performed contractor and professional services contractor oversight during hazardous material removal and ordered building demolition, and reviewed construction documentation report prepared by the professional services contractor.

Building Demolition Project, Kincheloe, MI, EGLE (07/2002–11/2002), Project Engineer. Assisted with preparation of an inert material designation petition for Lead-Based Paint building material. As part of the petition process, calculations were made to determine expected lead concentrations in demolition material based on initial paint chip sampling results and building debris volume estimates.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Mike Castillo, P.G., Project Manager	18 (P2)	21

c. Roles and Responsibilities as They Relate to the RFP

Responsible for the successful planning, execution, and completion of assigned projects. Directs project team and manages scope, schedule, and budget, aligned with client needs and achievement of project objectives. Provides direct and ongoing communication with State Project Manager, at a frequency supportive of timely decision-making and paced according to work intensity.

d. Direct or Consultant Employee	e. Physical Location (City, State)
Direct employee of Weston	Grand Rapids, Michigan

Other Relevant Professional Qualifications:

Education:

B.S., Environmental Geology - Michigan State University

Training/Certifications:

Professional Geologist (IL #196001276); Asbestos Hazard Emergency Response Act Asbestos Inspector (IL #100-10254); Air Sampling Professional (IL #100-10254); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4); 30-Hour Construction Safety and Health Training Course, OSHA 29 CFR 1926; International Organization for Standardization (ISO) 19011:2018, Certified Lead Auditor Management Systems; ISO 45001:2015, Certified Lead Auditor in Occupational Health & Safety Management Systems

Experience Summary:

Over 20 years of investigation, remediation, and environmental compliance work for the State of Michigan as well as other public and private clients. Served as a project manager for 10 years, managing 30 projects in the last 5 years. In addition, served as a geologist and compliance specialist in environmental investigations, audits, and hazardous waste management projects. Experience in developing/reviewing protocols to determine compliance with federal, state, local, and corporate requirements to ensure corporate programs are compliant with OSHA assessments. Experience with permitting support (air, water, waste, chemical management); due diligence investigations; hazardous material shipping/training; environmental reporting; emergency response; and employee SPCC and Stormwater Pollution Protection Plan training.

Relevant Project Experience:

USPS EPRRS Contracts, Various Locations, USPS (06/2006–Ongoing), Project Manager. Lead coordinator of USPS Contracting Officer's Representatives, USPS Post Masters, technical experts, subcontractors, and Weston field teams to assess emergency response and recovery requests from USPS Post Offices nationwide. Environmental projects included responses to flood damage, indoor air quality, oil spills, damaged lead paint surveys, asbestos surveys, asbestos abatement oversight, and water damage/mold at over 50 sites.

Enbridge Oil Spill Response, Marshall, MI, EGLE (10/2011–Ongoing), Project Oversight. Responsible for oversight and coordination of field team to complete daily tasks required to meet the goals of the large emergency response effort. Submitted daily reports to summarize progress for continual assessment and response.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (05/2002–Ongoing), Task Manager. Coordination of subcontractors and work scope during installation of slurry wall as part of an overall effort to extract and treat groundwater generated from a legacy contamination project.

Confidential Manufacturing Facility: Phase I ESA and Supplemental Letter Report, Danville, VA, Confidential Client (07/2021–10/2021), Lead Site Assessor. Performed Phase I ESA and ECR site visits, including interviews, record reviews, site reconnaissance, documentation of site and adjacent property conditions, and environmental compliance evaluation, to support due diligence and property acquisition associated with a custom chemical manufacturer property. Supported the preparation of the Phase I ESA and ECR reports. Project efforts were performed in accordance with ASTM E1527-13 and applicable environmental regulations.



DePue/New Jersey Zinc/Mobil Chemical Corp Superfund Site, DePue, IL, EPA (08/2020–Ongoing), Project Manager. Responsible for coordinating with the EPA Remedial Manager and Responsible Party team members to provide oversight and reporting of RA activities associated with metal-contaminated soil. Prepared site-specific plans for EPA review and approval. Reviewed PRP documents (e.g., HASPs, RAP, legal agreements) to verify compliance with CERCLA and settlement documents. Documented detailed observations, including interactions with all parties, results of field tests, and observations about conformance with and deviations from project-specific plans. Prepared and submitted weekly oversight reports and deviation notifications to EPA.

Preliminary Site Investigations in District 1, Multiple Locations, Illinois Department of Transportation (**IDOT**) (05/2019–Ongoing), Project Manager. Managed development of time-sensitive soil and groundwater investigation approaches requiring implementation of IDOT's Regulated Substances Evaluation Process to complete waste assessments in support of construction projects statewide. Evaluation process was used to develop project-specific special provisions that conform to IDOT's Standard Specifications for Road and Bridge Construction (Section 669), ASTM 1527-13, and applicable Illinois environmental laws and regulations related to LUST, Site Remediation Program (SRP), Tiered Approach to Corrective Action Objectives (TACO), special waste hauling, and Clean Construction or Demolition Debris (CCDD). Provided certification of soil results as the Professional Geologist.

Preliminary Site Investigations Statewide, Multiple Locations, IDOT (08/2016–Ongoing), Project Manager. Coordination of environmental investigations with subcontractors, laboratory firm, and field geologists to complete time-sensitive soil and groundwater investigation approaches requiring implementation of IDOT's Regulated Substances Evaluation Process to complete waste assessments in support of construction projects statewide. Evaluation process was used to develop project-specific special provisions that conform to IDOT's Standard Specifications for Road and Bridge Construction (Section 669), ASTM 1527-13, and applicable Illinois environmental laws and regulations related to LUST, SRP, TACO, special waste hauling, and CCDD. Provided certification of soil results as the Professional Geologist.

YFIMS Third-Party Benchmarking Audits, Multiple Locations, Yanfeng Automotive Interiors (11/2021–12/2021), Project Manager/Lead Auditor. Performed benchmark review of Yanfeng EHS processes as Lead Safety Auditor using information gathered from subject facilities. Evaluated Level 3 maturity assessments to internally evaluate facilities using established EHS indicators imbedded in a client-customized standard EHS management system assessment tool (YFIMS). Audits were 14001-based. Conducted reviews of site operations, interviews with personnel, and record review to benchmark facility status.

Environmental Compliance Support, Multiple Locations, Confidential Client (01/2021–12/2021), Project Manager. Coordinated responses from Regional Managers and EHS Managers to provide environmental compliance support to multiple automotive manufacturing plants. Response actions required to support site-specific environmental obligations included permitting, planning, reporting, and risk management.

Internal Environmental Management System (EMS) and Environmental Compliance Audit (ECA) Audits (Three Plants), Chattanooga, TN, Confidential Client (09/2021–10/2021), Project Manager/Lead Auditor. Coordinated Regional Managers and Plant Top Management teams to complete internal ISO 14001:2015 and environmental compliance audits at three automotive parts stamping facilities. Results were used by the plant to prepare for an external audit under a time-critical schedule. Developed site-specific EMS checklist to assess conformity, evaluate effectiveness, and identify opportunities for improvement. Developed site-specific compliance checklist to assess compliance with federal, state, local, and corporate requirements. Prepared and submitted audit reports to document performance.

Environmental Compliance Districts 1 & 3, Multiple Locations, IDOT (07/2017–07/2021), Task Manager/Compliance Lead. Coordinated ECAs to identify, prioritize, and present noncompliance findings associated with active IDOT-owned facilities (e.g., vehicle maintenance, sign shop, laboratory). Assessment results were evaluated against applicable local, federal, and Illinois environmental laws and regulations such as LUST, Clean Water Act (CWA), Clean Air Act (CAA), RCRA, Emergency Preparedness and Community Rightto-Know Act, and hazardous material. Conclusions were used to develop recommended corrective actions and cost estimates for IDOT facility managers to conform to when addressing noncompliance issues.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Catherine Schripsema, Project Manager	13 (P2)	15
c. Roles and Responsibilities as They Relate to the	RFP	
Responsible for the successful planning, execution, and completion of assigned projects. Directs project team and manages scope, schedule, and budget, aligned with client needs and achievement of project objectives. Provides direct and ongoing communication with State Project Manager, at a frequency supportive of timely decision-making and paced according to work intensity.		
d. Direct or Consultant Employee	e. Physical Location (City, Sta	te)
Direct employee of Weston	Traverse City, Michigan	
Other Relevant Professional Qualifications:		
Education:		
M.S., Civil Engineering – University of Massachusetts B.S., Civil Engineering – Montana State University		
Training/Certifications:		
40-Hour/8-Hour Hazardous Waste Site Training Cours	e, OSHA 29 CFR 1910.120(e)(3)	I
Experience Summary:		
project manager and project manager on multiple soil, sediment, and groundwater site investigation projects. Managed 17 projects within the last 10 years. Also experienced in delivery of remedial planning, implementation, and performance monitoring projects. She has experience working across multiple programs (private and government) with a diverse clientele, managing up to six separate projects at any given time. She possesses a comprehensive knowledge of site investigations, including obtaining site closures. Experience in all SOW areas Weston is pursuing under this contract		
Relevant Project Experience:		
 Charlestown Naval Auxiliary Landing Field (CNALF) Remedial Investigation, Charlestown, RI, USACE Baltimore District (08/2021–Ongoing), Assistant Project Manager. Assist in managing field staff to complete a Remedial Investigation at a FUDS. Send weekly and monthly summaries to USACE, manage day-to-day project components, and manage project schedule and budget. Environmental Remediation Services and Five-Year Review, Plum Tree Island Range FUDS, Poquoson, VA, USACE Baltimore District (10/2021–Ongoing), Assistant Project Manager. Assists in managing project schedule and budget. Led a team to submit a QAPP and HASP to complete an RD/RA for the potential presence of munitions and explosives of concern (MEC)/munitions potentially presenting an explosive hazard at eight 		
Munitions Response Sites (MRSs) at the FUDS.		
Nantucket Memorial Airport (ACK) PFAS Mitigation/Investigation/Remediation, Nantucket, MA, ACK (08/2021–Ongoing), Assistant Project Manager. Manages schedule and budget for design of a step-out drinking water sampling process to confirm extent of drinking water impacts at a PFAS-contaminated active municipal airport. Assists managing office and field staff during phased investigation to delineate nature and extent of PFAS in soil and groundwater. Facilitates communication between ACK and the community during routine public meetings.		
RA and Technical Support of MRSs R04A (North and South), SGL-127, and Tobyhanna Lakes and Wetland Area, Tobyhanna Artillery Range FUDS, Tobyhanna, PA, USACE Baltimore District (09/2021– Ongoing), Assistant Project Manager. Assistant manager of project where removal of MEC was completed. Assist with completion of site-specific field reports for multiple sites and a Five-Year Report. Manage project schedule and budget.		

Phase II Site Investigation, MI, Confidential Client (05/2013–05/2016), Project Manager. Led staff and supervised field teams to conduct a Phase II site investigation to identify possible contamination prior to a



property sale. Coordinated with regulators and site personnel to ensure all regulations were followed. Authored reports and responded to client feedback.

Chloride Subsurface Investigation, MI, Confidential Client (05/2013–05/2016), Project Manager. Led staff and supervised field teams to conduct a subsurface investigation to gain a better understanding of chloride contamination and to identify a possible remedy to historical releases. Coordinated between site personnel and regulators to ensure all regulations and guidelines were followed. Authored reports and responded to client feedback.

EE/CA for Various Sites, Cheatham Annex, Williamsburg, VA, NAVFAC Mid-Atlantic (05/2012–05/2016), Project Manager. Led staff to write an EE/CA for historical debris piles with possible historical soil and/or groundwater contamination.

TCE Site Investigation, WI, Confidential Client (05/2009–05/2016), Project Manager. Supervised field teams and staff and worked with subcontractors to investigate soil and groundwater where previous TCE exceedances were detected. Tasks included managing staff to conduct field work, performing data management and assessing the results, and preparing a site investigation report.

Igniter Area (UXO 19) and Site 17, Naval Support Facility Indian Head, Indian Head, MD, NAVFAC Washington (05/2009–05/2016), Project Manager. Led staff and subcontractors to prepare an Explosives Safety Submission and a work plan for removal of surface debris and MEC items, perform an interim removal action, and prepare a technical memorandum.

Nike C-32 FUDS Investigation, Porter, IN, USACE Louisville District (05/2008–05/2016), Assistant Project Manager. Negotiated multiple SOWs with the client and regulatory agency. Served as primary author on the planning documents and led the team to complete field work investigation of soil, sediment, and groundwater. Contaminants of concern (COCs) included metals, VOCs, SVOCs, PAHs, and PCBs. Managed staff and reviewed the site investigation report. Identified areas of contamination and continued to lead the site activities through the RI and FS.

Ottawa Flat Glass Site, Naplate, IL, EPA (05/2007–05/2016), Project Manager. Worked with a review team and a subcontractor to provide third-party review of the RI and FS documents to determine the nature and extent of arsenic contamination in groundwater, soils, sediment, and disposal piles caused by past disposal practices.

MGP Sites, WI, EPA (05/2010–05/2015), Project Manager. Led a review team to provide third-party review of RI and FS documents for five MGP sites.

Former Nike Site SL-90 FUDS Investigation, Grafton, IL, USACE Louisville District (05/2009–05/2011), Project Manager. Identified and established subcontractors, organized a field team, and prepared the team for the field. Assisted with the scope modification. Managed field team during field work. The site was previously identified as having benzene, toluene, ethylbenzene, and xylene (BTEX); polynuclear aromatics; and lead in the soil and groundwater. Provided QC on the data, assessed the data, and served as primary author of the report. Worked with the senior technical lead, client, and regulatory agency and obtained closure of the site.

EnviroChem Site, Zionsville, IN, EPA (05/2007–05/2011), Assistant Site Manager. Assisted in third-party oversight of the RA, reviewed PRP documents, provided field oversight and/or coordinated with oversight staff, provided field documentation to the client, and managed the subcontractor activities. Site activities included construction of a thin barrier curtain wall, construction and operation of an SVE system, and construction of a permeable reactive gate system.

Third Site, Zionsville, IN, EPA (05/2007–05/2011), Site Manager and Former Assistant Site Manager. Assisted in third-party oversight of the RA, reviewed PRP documents, provided field oversight and/or coordinated with oversight staff, provided field documentation to the client, and managed the subcontractor activities. Site activities included the installation of a sheet pile surrounding a dense nonaqueous phase liquid (DNAPL) plume, DNAPL pumping and in situ oxidation, construction and operation of SVE systems, and installation of a pump-and-treat system.

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a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Ed Coggin, P.E., Engineering Lead	20 (P4)	37

c. Roles and Responsibilities as They Relate to the RFP

Responsible for coordinating and completing project-related engineering tasks. The Engineering Lead is a P.E. and will oversee completion of tasks such as treatment system design, biddable specification development, and engineering evaluations of work completed by others.

d. Direct or Consultant Employee	e. Physical Location (City, State)	
Direct employee of Weston	Lincolnshire, Illinois	
Other Relevant Professional Qualifications		
Education:		
B.S., Civil Engineering – Florida State University		
B.S., Architecture – Florida A&M University		
Training/Certifications:		
<i>Professional Engineer (FL #38580); (IL #062-047381</i> OSHA 29 CFR 1910.120(e)(3)); 40-Hour Hazardous Waste Site Training Course,	
Experience Summary:		
Over 35 years of environmental engineering experience, specializing in soil and groundwater remediation, industrial wastewater treatment, and municipal water supply/wastewater treatment system design and construction with a focus on facility condition assessment, process upgrades, emergency repairs and modifications, and performance optimization. Decades of experience in surface water and groundwater remediation at sites with petroleum hydrocarbons, CVOCs, PAHs, PFAS, and metals. Also experienced in exsitu and in-situ soil remediation at sites impacted with petroleum hydrocarbons, CVOCs, PAHs and PFAS. As the engineering lead for these projects, directs teams of professionals with a focus on providing innovative and cost-saving upgrades to existing systems and designs for new systems.		

Relevant Project Experience:

Wright-Patterson AFB PFAS Investigation and Remediation, OH, USACE Omaha District (07/2021– Ongoing), Engineering Lead. Leading the design, construction, and commissioning of a novel 250-gpm groundwater extraction and gravity flow basin treatment system to filter solids and remove PFAS compounds, as well as total petroleum hydrocarbons, using biologically active granular media filtration (reed beds), GAC, and organoclay sorption media with the treated effluent discharged via a new NPDES permitted outfall. The project also includes construction of a series of innovative gravity flow passive basins for treatment and removal of PFAS from combined surface water and groundwater sources in a 500-gpm system at a separate location on the base.

USPS EPRRS Contracts, Various Locations, USPS (12/2014–Ongoing), Engineering Lead. Completed initial site inspection of hydraulic fluid release at vehicle maintenance facility to determine source of release to sanitary sewer system. Determined source of release and identified extents of impacted areas and led engineering team to prepare evaluation report that included recommended RAs to modify piping, oil/water separator, and operational changes to hydraulic lift system to minimize future releases. Prepared plans to implement the recommended RAs at the facility and coordinated construction activities to complete the RA.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (12/2014–Ongoing), Senior Engineer. Senior engineer role for design and construction of the groundwater treatment system that includes iron removal unit, bag filters, centrifugal filter, air stripper, GAC, air stripper, organoclay filter media, filtration system, and an activated alumina filter media. Directed procurement of supplemental treatment equipment and installed and integrated this equipment into the existing system when the discharge standards were revised to include arsenic. The supplemental equipment includes chemical dosing equipment to precipitate metals using coagulation/flocculation followed by sludge thickening and dewatering.



Shaw AFB PFAS Investigation and Remediation, SC, USACE Omaha District (06/2021–Ongoing), Engineering Lead. Leading the design, construction, and commissioning of soil and groundwater PFAS remediation systems at three former fire training sites at an active AFB. The project is being completed as an interim RA PP under an approved interim ROD. The interim RA is designed to reduce the mass of PFAS that is leaching into the groundwater and migrating to downgradient drinking water wells. The soil RAs include excavation and soil washing of over 100,000 tons of impacted soil to reduce leachable PFAS, and placing the treated soil as backfill in the source area excavations. A centrally located temporary soil washing facility is used to treat the impacted soil from all three PFAS source areas. The PFAS removed from the soil through the washing process is captured from the wash water with GAC, and the treated water is reused in the soil washing process. The groundwater RAs include the use of a series of 50-foot-deep extraction and reinjection trenches to capture the high-concentration source area groundwater at the three sites. The recovered groundwater is treated in a 1,000-gpm treatment system using GAC and ion exchange sorption media prior to being reinjected.

Roberts WWTP Upgrades, Roberts, WI, Village of Roberts (01/2019–Ongoing), Engineering Lead. Leading design services for a full-scale, permanent WWTP featuring a new, sustainable technology. Performing a treatability study, design implementation, permitting, and construction management for significant phosphorus reduction. Responsible for evaluating the system and finalizing quarterly effluent sampling to gauge the treatment accomplished by the current system. Authoring a summary of the analysis and resulting recommendations for system upgrades in a final report. Reviewing preliminary design packages; preparing final design specifications; preparing structural, mechanical, and final design documents; reviewing bid documents; managing schedule/budget; preparing punch list; and incorporating as-built documents.

Atlanta Syrup Plant WWTP, Atlanta, GA, Coca-Cola (07/2017–09/2018), Engineering Lead. Led the design-build of an industrial WWTP upgrade to meet consent order requirements for pH adjustment and phosphorus removal at a food and beverage facility. Evaluated the existing system and updated discharge permit requirements, completed influent and effluent sampling to gauge the extent of treatment accomplished by the current system, and provided a summary of the analysis and resulting recommendations for pretreatment system upgrades. A design-build approach with early equipment purchase for long lead items was used, which reduced the time needed to bring the system online by 4 months.

Wood Dale North WWTP Upgrade, Wood Dale, IL, City of Wood Dale (03/2010–12/2014), Project Manager/Engineering Lead. Managed and led the initial FS phase of the project through the completion of the second phase of the \$36M construction project. Major upgrade of the City of Wood Dale North WWTP included upgrading or replacing every unit process of the existing 15 MGD peak flow WWTP while maintaining full operational capacity during construction. The plant was modified to utilize biological nutrient removal for both phosphorous and nitrogen removal to comply with future NPDES permit conditions. The upgraded plant doubled the capacity of the existing 7-acre site located near downtown Wood Dale. To prepare for future effluent reuse opportunities, the plant was designed to incorporate systems that allow the reuse water to comply with California Title 22 requirements, in anticipation of Illinois implementing similar legislation. The project was completed on time and under budget.

Marengo Raw Pump Station, Marengo, IL, City of Marengo (12/2012–11/2014), Project Manager/ Engineer of Record. Led and managed the design and construction of a 6-MGD peak flow WWTP, incorporated innovative preliminary/primary treatment into the new raw pump station. The innovative treatment processes included the use of microscreens to remove total suspended solids from the raw sewage waste stream. The pump station also incorporated a self-cleaning wet well design that utilizes pre-rotation chambers for the raw pumps.

McHenry Sanitary Sewer Master Plan, McHenry, IL, City of McHenry (07/2008–09/2010), Engineering Lead. Led the evaluation and master plan for the sanitary sewer system for the City of McHenry, which has a population of 30,000 people. The system evaluation included 6 months of flow monitoring at 21 locations throughout the City's collection system; development of hydraulic models of the entire sewer systems that feed two separate treatment plants; and calibration of the hydraulic models to correspond to the potable water distribution system demands for normal flows, and to the 3-year, 10-year, and 100-year design storms for peak flows. The master planning process involved using this calibrated model to develop recommendations for



consolidating the two WWTPs to a single location, identifying the individual sub-catchments with the highest inflow and infiltration rates, developing a long-term plan to prioritize the rehabilitation of sub-catchments based on maximizing return, and planning for modifications to the system to accommodate future developments.

MGP Site Remediation, Chicago, IL, Peoples Gas (09/2000–08/2001), Engineering Lead. Provided the technical leadership on a lump sum design-build RA project at a former MGP site. Responsible for completing the soil and groundwater contaminant plume delineation and Site Investigation Report, identifying the appropriate cleanup levels using TACO for VOCs and PAHs, completing the Remediation Objectives Report, preparing the RAP that included excavation and off-site disposal of contaminated soil, performing the remediation construction activities, preparing the RACR, and obtaining an NFR letter for the owner. The remediation activities included the excavation and transportation of 42,000 tons of contaminated soil.

Soil and Groundwater Investigation and Remediation, Multiple Locations including Michigan, Shell Oil Corporation (1990s), Engineering Lead. Site characterization, RA planning, and remediation system installation activities at multiple former Shell Oil petroleum terminals in 10 different states. Activities included soil sampling and groundwater sampling to characterize the extents of soil source areas and groundwater plumes impacted by petroleum hydrocarbons and PAHs from AST, UST, and pipeline releases. RAs included SVE, groundwater pump and treat, excavation and low temperature thermal desorption, permeable reactive barriers, and in situ chemical oxidation.

Soil and Groundwater Investigation and Remediation, IL and WI, Mobil Oil Corporation (1990s), Engineering Lead. Engineering Lead for providing site environmental compliance at over 120 service station sites located in the northeastern Illinois and southeastern Wisconsin area. In this role, developed a site prioritization system for the client that enabled them to focus attention on the most critical sites while maintaining compliance on all sites. The prioritization system used toxicity characteristics and geological conditions to evaluate the potential for causing environmental impacts. This was a precursor to the IEPA TACO program, and the prioritization system allowed the client to easily transition into the TACO approach to the LUST Program. As Engineering Lead, was directly involved with the completion of the steps necessary to obtain NFR letters for many of the individual service station sites under this program.

Soil and Groundwater Investigation and Remediation, Multiple Locations, Unocal Chemical (1990s), Engineering Lead. The project included RI/FS, corrective action plan preparation, RD, and remedial construction oversight at multiple chemical distribution facilities in nine different states. Activities included soil and groundwater sampling to characterize VOCs, CVOCs, and PAHs from AST and UST releases. RAs included capping, groundwater extraction and treatment, SVE, in situ chemical oxidation, and permeable reactive barriers.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Bryce Fletcher, P.E., CEM, CQM-C, Remedy/O&M Lead	12 (P3)	33

c. Roles and Responsibilities as They Relate to the RFP

Responsible for leading technical staff working on remediation and/or O&M-related tasks. The Remedy/O&M Lead is a P.E. and will provide oversight and guidance on new and innovative technologies as well as traditional remedial and O&M technologies. Also will offer and support implementation of enhancements or upgrades that achieve project objectives at improved operability, lower cost, higher efficiency, and/or enhanced sustainability.

d. Direct or Consultant Employee	e. Physical Location (City, State)
Direct employee of Weston	Concord, New Hampshire

Other Relevant Professional Qualifications:

Education:

B.S., Mechanical Technology - University of Massachusetts

Training/Certifications:

Professional Engineer (NH #12054); USACE Construction Quality Management for Contractors (CQM-C) Certification; Wastewater Treatment System Operator (NH #415); Certified Energy Manager (CEM) (#14211); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4)

Experience Summary:

Over 30 years of experience in the environmental engineering field as a process, mechanical, and instrumentation design engineer with over 20 years in remedy construction, operation, and upgrade support. Expertise in process engineering, construction, and startup of water, wastewater, and hazardous waste treatment systems. Mechanical system design experience, including with pumps; valves; heating, ventilation, and air conditioning (HVAC); hydraulics; and plumbing systems. Water reuse system design and operations experience, with treatment systems such as activated sludge, ultra-filtration, and reverse osmosis. Wastewater design experience, including wastewater treatment facilities, sludge handling facilities, odor control facilities, pumping stations, and collection systems for both new and renovated facilities. Expertise in water design, including both slow sand and package filtration system designs, solids handling lagoon systems, clear wells, storage reservoirs, and pumping facilities. Remedial system O&M experience includes a wide range of treatment technologies for cleanup of extracted groundwater, extracted soil vapor, soil/sediment, septage, leachate, and surface water.

Relevant Project Experience:

Tech Town (Former GM Property), Dayton, OH, City of Dayton (03/2012–Ongoing), Remedy/O&M Lead. Prepared performance-based specifications, reviewed bids, and recommended vendor for pre-engineered SVE and ozone sparge system for site remedial activities. Also prepared SOW and requested bids for small (portable) SVE system that could be used at several sites. Following procurement, provided submittal reviews and startup support. Currently assists with troubleshooting O&M issues.

Coe's Cleaner Site, Milford, MI, EGLE (06/2016–Ongoing), Remedy/O&M Lead. Prepared basis of design and cost estimate for both engineering and construction of an SVE system, including investigations with local utility about power service availability during the initial phase of work on the project. Continues to serve as the Operations Manager for long-term operations, monitoring and maintenance of the system.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (01/1998–Ongoing), Remedy/O&M Lead. Provided design QC review and technical oversight of the groundwater extraction system upgrade at the site, including extraction system pumps, force mains, and GWTF integration. Currently leading multi-discipline team designing treatment system upgrade from 20 to 150 gpm to expand treatment capability to include removal of heavy metals with a chemical precipitation treatment process.



Stewart ANG PFOS and PFOA Interim Mitigation Project: Interim Stormwater Treatment System, Newburgh, NY, USACE (04/2019–Ongoing), Remedy/O&M Lead. The work consisted of designing, installing, and operating an Interim Stormwater Treatment System to treat perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) present in the stormwater as a time-sensitive interim mitigation measure. The work consisted of designing/installing a primary electrical feed to the remote site and designing, constructing, and operating a 500-gpm treatment system comprised of pre-filtration, GAC, and ion exchange. Provided input and direction during the design. Responsible for contractor supervision and QC during construction. Prepared daily QC reports and led the field personnel for system startup and operation. Continue to serve as the Operations Manager for long-term operations, monitoring and maintenance of the system.

Groundwater and Surface Water RA, Blackburn and Union Privileges Superfund Site, Walpole, MA (05/2016–Ongoing), Remedy/O&M Lead. This project includes the removal of approximately 10,000 tons of asbestos-containing soil and tailrace sediment. In addition, a groundwater collection trench and a 3,600-sf water treatment system were constructed. Following construction, Weston started the groundwater treatment facility (GWTF) and continues to operate it today. Project responsibilities include preparation of project plans and construction submittals, construction QC support, construction supervision, treatment system commissioning startup support, supervision of long-term operations, monitoring and maintenance.

Purification Wastewater Source Separation and Equalization System, Portsmouth, NH, Confidential Client (09/2020–03/2021), Senior Engineer/Remedy Lead. Led design-build team to implement segregation of target wastewater from four purification suites and buffer hold areas and to divert target wastewater to a new equalization system. Designed waste diversion equipment, stainless steel process mechanical piping, and a new stainless steel industrial drain network, which transferred wastewater to a concrete equalization basin. Work included design of diversion valves and controls, gravity drain, equalization transfer pumps, equalization tank mixing system, process control system, and process tank heating system, which employed plant steam and integration with existing facility wastewater monitoring/treatment systems. During construction, provided mechanical/electrical and instrumentation contractor supervision and coordinated work with the customer. Led startup and commissioning of the system and provided training to facility staff.

SVE and Groundwater Extraction and Treatment System Design, Former International Light Metals Facility, Confidential Client (02/2020–03/2021), Senior Engineer/Remedy Lead. Served as project lead for the process mechanical and civil design and coordinated with design engineering staff. Prepared project drawings and specifications.

Groundwater Containment and Treatment System Operations, Southington, CT, Solvents Recovery Superfund Site of New England (06/2003–01/2019), Remedy/O&M Lead. Remedy included a 50-gpm groundwater containment and treatment system. Unit processes include groundwater extraction, metals precipitation, sand filtration, ultraviolet oxidation, and hydrogen peroxide destruction. During operations of the system, prepared optimization recommendations on behalf of the client and implemented many operational and safety enhancements to improve the facility performance and achieve appropriate safety standards. Since taking over system operation, the electrical demand for the on-site ultraviolet oxidation organic destruction system has been reduced by over 50%, by reducing the number of operating lamps and implementing batch mode, which reduces the run time by approximately 25%.

GWTF Upgrade, Beede Superfund Site, Plaistow, NH, (11/2017–05/2018), Senior Engineer/Remedy Lead. Weston designed and implemented facility improvements and modifications to the existing GWTF to integrate system operations with an on-site thermal RA, improve facility safety, increase GWTF reliability, remove PFOS and PFOA from the facility effluent, and add sludge dewatering at the site. Thermal system integration included construction of new interconnecting influent and effluent high-density polyethylene force mains to supply make-up and receive pre-treated effluent from the thermal water treatment system. A new carbon treatment system was added to polish advanced oxidation treatment system effluent and remove PFOS and PFOA prior to discharge. The new carbon system consists of two 5,000-pound carbon vessels and two additional, temporary 5,000-pound carbon vessels provided for operation during the thermal RA phase. Also piloted and implemented a new 17-cubic-foot filter press, filter press feed system, and a backup rotary screw air compressor. Led the engineering, procurement, and submittals required to implement the project. Also coordinated construction, provided construction QC, and commissioned the system.

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a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Kathryne Frey, P.G., Reporting Lead	12 (P2)	15

c. Roles and Responsibilities as They Relate to the RFP

Responsible for making sure that technical reports are completed pursuant to regulatory requirements, client expectations, and Weston standards. The Reporting Lead will oversee technical staff and provide guidance and review during report preparation.

d. Direct or Consultant Employee	e. Physical Location (City, State)
Direct employee of Weston	Lincolnshire, Illinois

Other Relevant Professional Qualifications:

Education:

B.S., Geology – University of Delaware

Training/Certifications:

Professional Geologist (IL #196001426); (KS #932); (DE #S4-0011395); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4); 10-Hour Construction Safety Training, OSHA 29 CFR 1926; Field EHS Officer; RCRA Basics/Refresher; Shipping & Transporting Dangerous Goods, OSHA 49 CFR 172 Subpart H; Radiation Awareness; Hydrogen Sulfide Awareness; DOT Hazardous Materials Transportation; Fall Protection Competent Person, OSHA 29 CFR 1926 Subpart M; Global Harmonization System Hazard Communication, 29 CFR 1910.1200; Bloodborne Pathogens, OSHA 29 CFR 1910.1030; Confined Space, 29 CFR 1910.146

Experience Summary:

15 years of environmental experience, including TBAs; Phase I and Phase II ESAs, having performed more than 25 Phase I ESAs at various locations, including former and active industrial/commercial facilities and vacant properties across the United States; comprehensive site investigation reports; remedial objective reports; RAPs; enrollment in state voluntary cleanup programs; and NFA support. Experience also includes leading and executing field investigations involving soil, soil-gas, and groundwater characterization; conducting aquifer testing and analysis; performing data management and reports; and reviewing and developing the technical aspects of RI activities. Experienced in various drilling techniques, including mud rotary, HSA, and direct-push drilling, and in boring log generation in accordance with the Unified Soil Classification System (USCS). Served in Reporting Lead role on more than 35 projects in the last 10 years.

Relevant Project Experience:

USPS EPRRS Contracts, Various Locations, USPS (05/2010–Ongoing), Geologist/Reporting Lead. Assisted in categorizing and taking inventory of waste and potential wastes at USPS facilities. Performed Phase I ESAs at existing USPS facilities. Contacted federal and state agencies for environmental information related to the site, including coordination with site contacts, interviews, submittal of FOIA requests, historical research and review, performance of previous site investigations, and development of all final deliverables in accordance with ASTM Standards for Conducting All Appropriate Inquiries, Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process E1527-05 and E1527-13. Projects located in Michigan, Illinois, Indiana, Iowa, Minnesota, and Nebraska.

Superior Lubricants Phase I ESA and BEA Support, Milan, MI, (11/2017–07/2019), Geologist/Reporting Lead. Performed reporting tasks for a Phase I ESA in accordance with the ASTM E1527-13 and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries to support a pending real estate transaction for property located in Milan, MI.

UMB Bank Property: Phase I ESA & Phase II Investigation, Kirkwood, MO, Confidential Client (06/2021–02/2022), Geologist/Project Manager (including Reporting Lead). Managed project team, schedule, and budgets for a Phase I ESA performed in accordance with ASTM E1527-13 and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries on a commercial structure located in Missouri. Developed a Sampling and Analysis Plan (SAP) for Phase II Investigation based on historical investigations and RECs



identified at the property to investigate potential contamination in soil and groundwater pathways in accordance with Missouri regulations. Oversaw data management and reporting for client deliverables.

Confidential Manufacturing Facility: Phase I ESA and Supplemental Letter Report, Danville, VA, Confidential Client (07/2021–11/2021), Technical Manager/Reporting Lead. Performed Phase I ESA reporting, historical document review, and supplemental reporting for a custom chemical facility. Managed project team, schedule, and budget for an updated Phase I ESA requested by the client 5 years later. Project was performed in accordance with ASTM E1527-13 and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries.

Phase I ESA and Comprehensive Site Investigation, Former Valspar Facility, Rockford, IL, Confidential Client (07/2018–Ongoing), Senior Geologist/Project Manager (including Reporting Lead). Performed Phase I ESA and developed sampling plan for comprehensive site investigation. Collected soil samples using a Geoprobe. Installed shallow monitoring wells, developed monitoring wells, and collected groundwater samples using low-flow sampling techniques. Conducted product bail down testing and monthly well gauging of groundwater elevation. Provided data management for samples collected throughout several phases of sampling. Reviewed historical data for FS for remediation. Site to be enrolled in the IEPA SRP.

Hydrogeological Evaluation, Chicago, IL, Confidential Client (04/2017–Ongoing), Senior Geologist/ Reporting Lead. Performed oversight of drillers during soil boring advancement and installation of wells during multiple investigations. Use DPT macrocores and HSA split spoons to acquire continuous soil samples for USCS logging necessary for geotechnical borings, to map permeable water-bearing intervals, and to confirm the presence of aquitard materials located within the on-site containment system. Performed development and analytical sampling of new wells, analyzed groundwater flow data, and conducted pumping tests on wells to determine long-term pumping rates and hydraulic communication. Calculated horizontal and vertical gradients within the on-site containment system. Used pressure transducers in more than 50 well locations to determine groundwater connectivity during pumping tests. Generated cross sections of site conditions from boring logs. Conduct routine groundwater extraction and treatment O&M, collect samples as required in accordance with NPDES permit, and prepare client and agency deliverables.

Former Speed E Mart Site, Milford, MI, EGLE (02/2013–Ongoing), Reporting Support. Primary tasks included data management and reporting support for soil and groundwater samples collected for RI and long-term monitoring.

Phase I ESA & Comprehensive Site Investigation, 1000 McKee Street, Batavia, IL, Confidential Client (11/2014–12/2018), Geologist/Reporting Lead. Developed a supplemental sampling plan based on historical investigations and remediation at a former manufacturing facility to investigate potential contamination in soil, groundwater, and soil-gas pathways in accordance with IEPA regulations. Conducted a Phase I ESA in accordance with ASTM E1527-13 and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries for client on adjoining property. Performed oversight of LBP sampling on former building foundations. Collected soil samples using a Geoprobe[®]. Installed and developed shallow monitoring wells, developed monitoring wells, and collected groundwater samples using low-flow sampling techniques. Collected soil-gas samples for VOCs and PCBs. Provided data management for all samples collected throughout investigation and remediation. Completed Comprehensive Site Investigation Report, Remediation Objectives Report, and RAP for submittal to the IEPA for admittance into the IEPA's SRP. Remediation included injection of a fermentable carbon source for TCE plumes in groundwater and hotspot excavation for PCBs in soil and PAHs in foundry sands. Performed subcontractor oversight during remediation activities. Treatment of the TCE plume and removal of contaminated soils were completed. Completed RACR for submittal to IEPA following completion of remedial activities. Achieved a Comprehensive NFR determination for the site.

TBA, Phase I ESA/Phase II Investigation, Bronzeville Urban Development, Chicago, IL, EPA (07/2012–10/2014), Geologist/Reporting Lead. Conducted Phase I ESA on Brownfields site consisting of multiple elevated abandoned railroad parcels. Phase II Investigation included collection of soil samples from abandoned elevated platforms using a Geoprobe[®]. Completed Comprehensive Site Investigation Report, Remediation Objectives Report, and RAP for submittal to the IEPA. The site was admitted into the IEPA's SRP. IEPA approved the combined Comprehensive Site Investigation Report/Remediation Objectives Report/RAP.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Lisa Kammer, P.G., PFAS Lead	6 (P4)	18

c. Roles and Responsibilities as They Relate to the RFP

Responsible for providing guidance and expertise for projects involving PFAS-related issues. The PFAS Lead is a national expert and will oversee projects and staff to ensure that current regulations are followed and that the most up-to-date technologies (e.g., remedial, sampling, laboratory methods) are being used.

d. Direct or Consultant Employee	e. Physical Location (City, State)
Direct employee of Weston	Concord, New Hampshire

Other Relevant Professional Qualifications:

Education:

M.S., Geology & Geophysics – Boston College

B.S., Geology - University of Northern Colorado

Training/Certifications:

Professional Geologist (NH #857); (NY #500); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); Geological Society of New Hampshire; Emerging Issues Lead, Society of American Military Engineers (SAME), Environmental Community of Interest (2022); Interstate Technology & Regulatory Council (ITRC) PFAS Team (Regs, Tox, & Risk Assessment subgroup; History & Use & Naming Conventions subgroup) (2018 to present)

Experience Summary:

Over 15 years of experience as a geologist, performing and managing design, implementation, and monitoring effectiveness of RAs involving multimedia approaches in complex hydrogeologic regimes. Expertise in PFAS investigation and remediation technologies. As Weston's PFAS Lead, she provides national technical guidance for PFAS investigation and leads Weston's Emerging Contaminants Community of Practice. Member of the ITRC PFAS Team that is responsible for developing technical resources to help regulators and stakeholders improve their understanding of the science behind PFAS.

Relevant Project Experience:

CNALF Remedial Investigation, Charlestown, RI, USACE Baltimore District (09/2019–Ongoing), PFAS SME. Provides technical support to the project team on PFAS-related questions for project planning and field work implementation. Provides guidance to technical team in development of the Work Plan and technical approaches and to the field team during implementation.

ACK PFAS Mitigation/Investigation/Remediation, Nantucket, MA, ACK (07/2020–Ongoing), PFAS Subject Matter Expert (SME). Drinking water, groundwater, and soil are contaminated with PFAS at an active municipal airport, likely from AFFF releases to the ground surface during Federal Aviation Administration (FAA)-required training and certification exercises. Leads team in design of an efficient and regulator-approved, step-out drinking water sampling process to confirm extent of drinking water impacts. Leveraged risk communication and community relations experience to successfully engage with the community and assist ACK with community relations efforts. Designed effective phased investigation approach to delineate nature and extent of PFAS in soil and groundwater. Approach capitalizes on unique physiochemical properties of PFAS and limits operational impacts to the active airport Experienced-based leadership of successful implementation of tasks despite island-specific challenges.

Environmental Consulting Services Contract, NH, New Hampshire Department of Environmental Services (NHDES) (07/2017–Ongoing), Program Manager/PFAS Lead. Delivers best value to NHDES through training and integration of Weston team with NHDES rules, procedures, and work practices. Provides regulatory and technical guidance on New Hampshire and federal regulations. Serves as primary client contact and provides program quality management, including training and adherence to the NHDES Hazardous Waste Remediation Bureau (HWRB) Master QAPP and Weston's Environmental Consulting Services Contract Quality Pledge. Responsible for financial and resource management. Provides technical guidance to the team and NHDES in emerging contaminants (i.e., PFAS) and specialized services. Trains and develops project leads and PMs in the



management of Oil Discharge, Disposal, and Cleanup Fund Petroleum Reimbursement project rules, guidelines, and procedures. Organizes technical transfer sessions and hosts training/learning opportunities for NHDES. Worked with NHDES in 2017 and 2021/2022 to update HWRB Master QAPP SOPs.

PFAS Educational Materials and Annual Training, San Antonio, TX, CPS Energy (10/2021–05/2022), PFAS SME. Developed client-specific educational materials pertaining to PFAS and the potential for workplace exposure to PFAS at facilities operated by CPS Energy at Joint Base San Antonio Lackland. As of the date of educational materials (April 2022), neither EPA nor OSHA had established regulatory levels for PFAS. However, EPA, as well as several states, technical working groups, and peer-reviewed journals, have published an overwhelming number of materials on worker exposure to certain PFAS. Completed three separate virtual "train the trainer" sessions, prepared a frequently asked questions document for CPS Energy, and a polished recorded training session for future use. These tools aid the client in risk communication surrounding potential PFAS exposures related to CPS Energy worker duties at the base. The materials provide information to the management staff as well as those at the job sites.

PFAS Baseline Study of Lake Fish Specimens, Surface Water, and Sediment, NH, NHDES (10/2020–04/2021), Project Manager/PFAS Lead. Worked with NHDES to develop a study to determine the presence/absence of PFAS in fish tissue, surface water, and sediments within 12 target lakes frequented by recreational anglers and 2 reference lakes throughout New Hampshire. Assembled experienced team to complete field work, including developing a baseline data set of PFAS concentrations in fish, surface water, and sediment. Study objectives were to sample at lakes popular to recreational anglers and to collect target fish species. The ranking of alternate candidate fish species was determined in the study planning phase and in consultation with NHDES based on expected angler preferences for catching and consuming game fish. Prepared a final report detailing the field activities, laboratory analytical results, and any deviations/corrective actions completed. As a result of the study and concentrations detected, NHDES issued a consumption advisory for five of the southern New Hampshire lakes included in the study.

Bodwell Septage Lagoon Site, Biological Recycling Services, Drinking Water PFAS Mitigation and Monitoring, East Kingston, NH, NHDES (09/2019–06/2020), Project Manager/PFAS Lead. Leveraged risk communication and community engagement experience to engage with the affected community and obtain rightof-entry access agreements for 10 impacted properties. Contracted with a local drinking water mitigation vendor with an existing relationship with NHDES to complete site evaluations and subsequent installations of point-ofentry treatment (POET) systems at the 10 residences. Implemented efficiencies in performance monitoring and maintenance options by designing systems with sample ports located with pre-, mid-, and post-treatment vessel and a flow totalizing meter. Developed site-specific breakthrough curves that allow for more efficient system maintenance schedules and reduction of costs to the client by as much as 36%.

Public Water Supply (PWS) White Paper: "Estimated Cost to Design Modification for the Treatment of PFAS at Small Public Water Supply Systems," Concord, NH, NHDES (01/2020–02/2020), Project Manager/PFAS Lead. Led team to develop a document outlining the method by which NHDES can estimate the cost of designing the modifications necessary for small PWS systems to comply with the new PFAS standards and provide equitable grants to affected systems. Team engineers researched the cost of designing modifications necessary to comply with current PFAS standards at existing small PWS systems where PFAS treatment components have been installed. Facilitated interviews with designers and/or installers who have completed the design and installation of PFAS treatment systems for small PWS systems. Led team to meet schedule and budget for development of the White Paper. Reviewed and approved final submittal, which included detailed research and interview results and design cost estimating forms for the determination of reimbursement qualifications for new PFAS treatment system installations.

Toxicological Support, Draft Agency for Toxic Substances and Disease Registry (ATSDR) PFAS Toxicological Profile Review, NH, NHDES (07/2018–07/2019), Project Manager/PFAS Lead. Leveraged professional network to source an independent, third-party toxicologist to review the draft ATSDR PFAS Toxicological Profiles on behalf of NHDES. Facilitated multiple meetings and reviews of the final document provided to NHDES. Provided community support information that NHDES was able to use in communications related to the development of appropriate drinking water concentration guidelines that would be protective of public health at all life stages for the four PFAS addressed.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Janelle Myers, Data Management Lead	3 (P2)	6
c. Roles and Responsibilities as They Relate to th	e RFP	1
Responsible for receiving and reviewing project analy producing tables and figures for use in final deliverab	tical data, maintaining the project	database, and will review analytical
data packages for quality issues or irregularities to en-	sure that project data are accurate	and representative.
d. Direct or Consultant Employee	e. Physical Location (City. Sta	ite)
Direct employee of Weston	Okemos, Michigan	,
Other Relevant Professional Qualifications:		
Education:		
M.S., Earth & Environmental Sciences – Lehigh Univ	versity	
B.S., Geology with Environmental Engineering Mino	r – University of Pittsburgh	
Training/Certifications:		
40-Hour/8-Hour Hazardous Waste Site Training Cour Safety and Health Training Course, OSHA 29 CFR 19	rse, OSHA 29 CFR 1910.120(e)(3) 926; 8-Hour SHSC, OSHA 29 CFI); 30-Hour Construction R 1910.120(e)(4)
Experience Summary:		
Specializes in data collection and management and m used to evaluate potential contamination. Served as D In addition, conducts and/or oversees environmental s specialized in drilling techniques such as DPT, Geopr and split-spoon samplers, installed temporary and per data, and serves as a lead author on investigation and	apping of multimedia (groundwate ata Management Lead on 25 proje site assessments and has experienc obe [®] , and HSA. Performs soil sam manent monitoring wells, mapped RA plans	er, soil, soil-gas) data cts over the last 6 years. e in the use of upling using macro-core and analyzed resultant
Polovent Project Experience:		
Dry Cleaner Facility (Snedicor's Cleaners), Howell Manager. Conducts VI investigation activities, oversit (SSDSs), O&M activities for SSDS, groundwater well and sampling. Performs data management and contam	I, MI, EGLE (03/2019–Ongoing) ght of installation of sub-slab depu l installations and sampling, VAS, inant mapping using ArcGIS.	, Project Geologist/Data essurization systems and soil-gas installations
Quinn Road Grosse Pointe Dump Site, Clinton Toy Geologist/Data Manager. Installed methane vents an park. Performs regulator monitoring of methane conce	wnship, MI, EGLE (06/2018–On d soil-gas probes to prevent buildu entrations from soil-gas probes.	going), Project 1p of methane beneath a
Chapel Landfill Site, White Lake, MI, EGLE (05/2018–Ongoing), Project Geologist/Data Manager. Sample various media (groundwater, soil, soil-gas) to evaluate potential contamination related to former landfill disposal operations. Installed passive vents to mitigate elevated methane levels. Manages analytical data and contaminant mapping using ArcGIS. Writes reports for site investigation activities and remediation alternatives.		
Former U.S. Aviex Site, Niles, MI, EGLE (04/2018–Ongoing), Geologist/Data Manager. Prepared GIS		
mapping of contaminant plumes and concentration dis trichloroethane (TCA), TCE, PCE, and other COCs re- creation of queries for table generation and formatting throughout history and evaluating contaminant migrat activities for the project, including groundwater samplinvestigations, VAS, and well elevation surveying. We memorandums. Prepared 3D visualization of contaminant	stribution of 1,2-dichloroethane, di lated to the site. Management of A g. Evaluating trends of contaminan ion along groundwater flow. Also ling, vapor pin installation and san rites and edits reports for annual g nant plume using EVS.	ethyl ether, 1,1,1- access database and t concentrations contributed to field apling, soil boring roundwater technical
Residential Wells-Holly Road VI Investigation, Bri Manager. Installed and sampled interior sub-slab vap related to groundwater contamination. Set 24-hour inc database and GIS management of samples and schedu	ghton, MI, EGLE (01/2018–Ong or pins to assess potential for VI in loor air samples to evaluate humar ling. Oversees SSDS installation a	;oing), Geologist/Data nto residential homes n health risk. Performs nt residences where indoor

air concentrations present a risk to human health.



Coe's Cleaner Site, Milford, MI, EGLE (07/2016–Ongoing), Project Geologist/Data Manager. Responsible for groundwater sampling, database management, and GIS mapping of analytical results and contaminant plume. Conducts VI investigation activities, such as vapor well installation and sampling, sub-slab soil-gas probe installation and sampling, and indoor air sampling. The NPDES permit required reporting through MiWaters site. Writes investigation reports and runs pilot testing of the SVE system, including installation of extraction wells and monitoring points.

Velsicol Chemical Company Superfund Site, St. Louis, MI, EGLE (07/2016–Ongoing), Data Manager. Provided GIS contaminant mapping and database management for excavation of impacted soil area. Prepared reports of railroad investigation activities and historical research.

Tech Town (Former GM Property), Dayton, OH, City of Dayton (07/2016–Ongoing), Geologist/Data Manager. Creates new GIS maps and modifying existing data and shapefiles from several phases of groundwater sampling. Manages database queries to pair EnviroData and GIS. Conducts groundwater and soil-gas sampling, installs wells, and reports site investigation activities and RAPs for NFA approval.

Enbridge Oil Spill Response, Marshall, MI, EGLE (07/2016–Ongoing), Geologist/Data Manager. Creating new GIS maps and modifying existing GIS maps of groundwater, soil, and sediment data. Managing large data sets of many samples taken over several phases of work, and consolidating the information using database queries and GIS maps.

USPS EPRRS Contracts, Various Locations, USPS (07/2016–Ongoing), Data Manager. Provides oversight of subcontractors performing activities such as LBP abatement and flood damage repair at impacted facilities. Prepares maps of facilities that may be impacted during hurricanes as part of an emergency response. Map delivery required at regular intervals throughout the day with minimal prep time.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (07/2016–Ongoing), Project Geologist. Performed slug testing and extraction well installations to assist with the design of a large-scale groundwater extraction system. Monitored groundwater elevations using transducers.

UMB Bank Property: Phase I ESA & Phase II Investigation, Kirkwood, MO, Confidential Client (06/2021–02/2022), Data Manager. Data management and contaminant mapping using ArcGIS.

Philadelphia Street Site, Detroit, MI, EGLE (04/2017–04/2020), Data Manager. Provided GIS contaminant mapping and database management for excavation of impacted soil area. Prepared bidding specifications for subcontractor acquirement.

Site Investigation, Milan, MI, Confidential Client (11/2017–07/2019), Geologist. Conducted a site investigation for a BEA. Installed soil borings and temporary monitoring wells to establish impacted areas via soil and groundwater sampling.

Mack Avenue Site, Detroit, MI, EGLE (04/2017–04/2018), Geologist. Provided GIS contaminant mapping and database management for excavation of impacted soil area. Prepared bidding specifications for subcontractor acquirement.

Multimedia Remediation Projects, Various Locations, EGLE (01/2019–Ongoing), Geographic Information System (GIS)/Data Manager. Manages data and GIS requirements for EGLE remediation projects throughout the Midwest. Creates integrated sampling and data management plans using ArcGIS and EnviroData database software for soil, sediment, water, and air quality sampling data. Creates spatial and temporal representations of sampling data to aid RA decisions and helped clients to visualize data through various ArcGIS Enterprise tools, including ArcGIS Online.

National Drought Resilience Partnership Multi-Agency Exercise, Multiple Locations, EPA Region 6 (06/2018–Ongoing), GIS Analyst. Assists in development of data management procedure to manage NRC/state agency reports in the Incident Command System under Emergency Support Function (ESF)-10 operations. Designs SOPs to consolidate incoming data from multiple sources and supply a de-conflicted data set of target assessment areas for field teams during a hurricane response. Presents SOP to agencies involved to become part of procedures for ESF-10 responses in Louisiana.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Vincent Dello Russo, P.G., Geology Lead	29 (P4)	41
c. Roles and Responsibilities as They Relate to the RFP		

Responsible for providing geological expertise and review of sites with complex geological conditions. The Geology Lead is a P.G. and will oversee technical staff, assist with interpretations and evaluation of site data, and develop or review geologic cross sections.

	on (ony, orace)
Direct employee of Weston Okemos, Michigan	l

Other Relevant Professional Qualifications:

Education:

M.S., Geology - University of Vermont

B.S., Geology with Applied Math Minor – University of Massachusetts

Training/Certifications:

Professional Geologist (NH #00093); (ME #GE443); (PA #PG002763G); 40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4); 10-Hour Construction Safety Training, OSHA 29 CFR 1926

Experience Summary:

Decades of experience include technical and project management of site inspections and assessments, characterization of petroleum and hazardous waste sites, crude oil releases, facility-wide RI/FS/Decision Document (DD) projects, Phases I/II hydrogeologic investigations, VI investigation/mitigation, asbestos abatement, landfill closures, and building demolition projects. Over 11 years of support on State of Michigan contracts. Expert in geologic characterization, including mapping, fracture trace analysis, and bedrock outcrop/core analysis; petrographic analysis of rock, concrete, and slags; and aggregate durability testing.

Relevant Project Experience:

CNALF Remedial Investigation, Charlestown, RI, USACE Baltimore District (09/2019–Ongoing), Geology Lead/Geologist. Responsible for technical direction of the technical approach and implementation of an RI of three landfills, three former boiler houses, a transformer pit, and a burn pit area of the World War II-era naval air training facility that closed in the early 1970s. Coordinated the project team to prepare work plans and UFP-QAPPs detailing project requirements. Project includes RCRA evaluation of residual soil contamination at the boiler house and CERCLA evaluation of PCBs at the transformer pit. The landfills and burn pit area investigations are being evaluated under CERCLA. Landfill investigations include geophysical surveys and test pits to assess the presence of MEC and evaluate potential groundwater contamination sources. Risk characterizations are to be completed based on results of incremental sampling methodology (ISM) soil sampling, monitoring well installations and sampling, ISM sediment sampling, and discrete surface water and pore water sampling to define the nature and extent of contamination at each site. Nearby on-site and off-site drinking water sources are to be sampled for PFAS to assess DoD-related impacts. Sampling areas include freshwater ponds, wetlands, and coastal tidal estuary shorelines and wetlands adjacent to the facility. Based on the RI results, an FS may be completed to support a PP and DD to mitigate identified potential risks.

Chapel Landfill Site, White Lake, MI, EGLE (05/2018–Ongoing), Geology Lead. Provides QA technical review for interpretation of groundwater potentiometric data and mapping of groundwater and soil-gas contaminant distribution results to assess current site conditions at a former municipal-type waste landfill. The site is near residential areas with private water supply wells and several lakes where a mixed petroleum-solvent-methane contamination plume has impacted some private wells. Boring logs, EGLE well database information, and results from soil, soil-gas, groundwater, and residential drinking water sampling are used to prepare geologic cross sections to characterize the site.

Dry Cleaner Facility (Snedicor's Cleaners), Howell, MI, EGLE (03/2019–Ongoing), Geology Lead. Developed the scope of investigation and managed the implementation of sampling activities for a high-profile VI site in a downtown area of historic old buildings and residences near a dry cleaner that operated for over 100



years. Manages the interpretation and reporting of results. Implements deployment of temporary air purifying units after evacuation of three buildings/two businesses. Leads the design effort to implement SSDSs to mitigate five commercial buildings with up to 1.9M micrograms per cubic meter (μ g/m³) of PCE in sub-slab soil vapor and 2,500 μ g/m³ of PCE in indoor air. Manages the procurement and installation oversight for system installations with carbon treatment of discharge air and post-mitigation sampling to verify indoor air levels are quickly reduced below state screening levels. Coordinates with building owners to minimize business losses and return the businesses to full operation with re-occupancy within 1 month of evacuation.

Former U.S. Aviex Site: PFAS Sampling, Niles, MI, EGLE (04/2018–Ongoing), Project Manager/Geology Lead. Managed and implemented LTM at the site of historical solvents/diethyl ether groundwater plumes extending more than 1 mile downgradient from the site of a former aircraft lubrication manufacturing facility. Tracking migration of groundwater plumes near active public water supply wells. Conducting annual groundwater monitoring from a network of over 50 wells for chlorinated solvents. Recently, wells were sampled for 1,4-dioxane and PFAS. Completed soil-gas well and Vapor Pin[®] installations with indoor air, vapor well, and sub-slab sampling to assess potential VI risks at nearby residences. Managed project sampling teams and currently prepares SOWs, reviews and interprets results, prepares reports (including monthly reporting), reviews invoices, and tracks the budget. Completed demolition and restoration of former treatment facility buildings for immediate reuse of portions of the site.

Residential Wells-Holly Road Site, Brighton, MI, EGLE (01/2018–Ongoing), Geology Lead. Leads the implementation of a residential VI investigation of approximately 100 residences near a 0.5-mile-long TCE groundwater plume. Tasks include planning and scheduling access; chemical and structural inspections of residences; sub-slab soil-gas and indoor air sampling, review, tracking, and interpretation; and reporting of results with comparison to current screening levels to determine appropriate response. Implements immediate remedial measures as necessary, including use of temporary air purifying units followed by sub-slab pressure field testing, mitigation system design, and installation of SSDSs where needed to mitigate TCE vapors in indoor air. Prepares summary maps and posters for client support for public meeting and newsletter.

Coe's Cleaner Site, Milford, MI, EGLE (06/2016–Ongoing), Geology Lead. Responsibilities include technical support for interpretation of plume migration for a chlorinated solvent plume and for a groundwater pump-and-treat system to mitigate potential impact to a public water supply. Provides QA review of groundwater potentiometric data and mapping of groundwater contaminant distribution results to assess current site conditions.

Enbridge Oil Spill Response, Marshall, MI, EGLE (10/2011–Ongoing), Senior Technical Manager/Project Manager. Provides technical oversight for EGLE on oil spill response, RI, and remediation activities by Enbridge Energy for the remediation/restoration of 40 miles of the Talmadge Creek and Kalamazoo River due to the pipeline release of one million gallons of heavy crude oil. Conducts field oversight of response activities, including sediment agitation, oil recovery, tar patty removals, soil/sediment/groundwater sampling, and streambed excavation and restoration to ensure compliance with approved work plans/SOPs/permits. Logs soil/sediment cores with ultraviolet light oil identification. Collects split samples for correlation with Enbridge Energy results. Provides critical reviews and comments on Enbridge Energy documents to identify data gaps and significant issues/discrepancies for resolution. Provides technical support to EGLE at stakeholder meetings. Assumed Project Manager responsibilities during the RI phase after the emergency response actions were completed.

Cole's Garage Site, Sanford, MI, EGLE (09/2016–Ongoing), Project Manager/Geology Lead. Manages an RI of a historical release of petroleum from USTs at a former gasoline station. Tasks include annual groundwater and sub-slab vapor sampling; preparation of data tables, maps, and cross sections; data review; and recommendations to EGLE based on interpretation of results. Results indicate low potential risk to nearby commercial and residential properties from residual groundwater contamination because the plume is stable, and biodegradation of the plume is resulting in declining petroleum compound concentrations.

Former Buck Mine Site, Caspian, MI, EGLE (04/2010–Ongoing), Geology Lead. Provided QA technical support for review of the O&M and annual reporting activities at the site of a former iron mine adjacent to a river. The site includes a series of passive treatment ponds and wetlands to mitigate acid rock drainage from the waste rock piles prior to discharge to surface water. Weston upgraded the existing remedy and continues to



perform semi-annual inspections and maintenance to maintain open culverts and conduits and a solar powered aeration system. Surface water monitoring data are collected annually and reviewed to ensure compliance with surface water discharge criteria with recommendations for system adjustments.

Hamburg-Unadilla Road Contamination Area Site (Former ACO Division – Pittsfield Products), Pinckney, MI, EGLE (10/2018–07/2022), Geology Lead. Managed the technical and day-to-day implementation of a rapid VI assessment and mitigation for a chlorinated solvent groundwater plume relating to historical use of TCE at a former manufacturing facility. Evaluated the VI pathway in several residential neighborhoods involving over 20 residences and a school. Completed sub-slab, vapor well, and indoor air sampling using co-located samples collected from Vapor Pins[®], basements, and living spaces to identify potential VI impacts. Coordinated access, tracked sampling progress, and mapped results to support EGLE decision-making. Provided support for public information meeting. Implemented an SSDS at a residence within 1 week of receipt of results indicating site-specific criteria exceedances. Supported EGLE in providing timely result notifications to residents.

Village of Douglas Site, Douglas, MI, EGLE (03/2012–01/2020), Senior Technical Manager/Geology Lead. Provided technical management for follow-on RI at a former furniture manufacturing facility. Historical release of chlorinated solvents resulted in soil-gas, soil, and groundwater impacts beneath the 100,000-sf building and resulted in a 0.5-mile-long plume with TCE groundwater concentrations up to 33,000 parts per billion, which impacts a downgradient stream. Developed and implemented an RI SOW to characterize the source area. Completed a boring and well installation program inside and around the building that successfully identified the vertical and lateral plume extent and source soil locations containing TCE concentrations that indicate likely presence of DNAPL. Review of results from surface water, sediment, soil, groundwater, soil-gas, indoor air, and membrane interface probe vertical profiling samples. Prepared maps, tables, and cross sections to synthesize results into a comprehensive RI report with recommendations for an FS for remediation of the source area and ecological assessment of the stream.

Warren Avenue LUST Site, Detroit, MI, EGLE (07/2014–09/2019), Project Manager/Geology Lead. Responsibilities include project/technical management of a petroleum release at former gasoline station site with groundwater and LNAPL plumes. Managed well installations and groundwater and sub-slab vapor sampling for petroleum VOCs to assess potential impacts to adjacent commercial businesses. Completed multiple sampling rounds, monthly level monitoring, and bail-down testing to evaluate feasibility of LNAPL recovery options based on LNAPL transmissivity. Prepared maps and tables illustrating contaminant distribution to support a final project report. Performed budget tracking, invoice review, monthly report preparation, and client correspondence.

Residential Wells-Holly Road Site (Groundwater Treatment and SVE System Facilities), Brighton, MI, EGLE (04/2011–Ongoing), Project Manager/Geology Lead. Manages and provides oversight of ongoing operation of a 30-gpm GWTF that intercepts a historical chlorinated solvent plume and a source area SVE system. Tasks include management of TC maintenance activities, review of biweekly water quality and air monitoring data, tracking of monthly NPDES reporting, carbon changes, and disposal manifests. Recommended SVE system upgrades to improve moisture removal to extend life of the air phase carbon. Responsible for tracking budget, preparing monthly client reports, preparing contract modifications, and conducting invoice review.

Westover Air Reserve Base Hydrant Refueling System Release Site, Chicopee, MA, USACE (08/2014–06/2020), Project Manager/Geology Lead. Managed the remedial response efforts at the location of a release of over 20,000 gallons of JP-8 fuel from the subsurface hydrant refueling system. Implemented multiphase vacuum extraction, installation of 50 recovery wells, groundwater sampling, recovery and monitoring of light nonaqueous phase liquid (LNAPL), and reporting of results in accordance with the Massachusetts Contingency Plan. Completed design and implementation of two self-contained, single-phase extraction, pneumatic skimmer pump systems to accelerate the LNAPL recovery. The systems are mobile, solar-powered, and low profile with remote monitoring and are designed to be installed/removed within a 2-day timeframe. The systems recover only LNAPL that is recycled. Recovered over 1,000 gallons of LNAPL in the first 4 months. Project was selected by the Massachusetts Department of Environmental Protection (MassDEP) for the 2017 Greener Cleanup Recognition Award exemplifying the MassDEP and ASTM Greener Cleanup Guidance.

Former American Carco Site, Dayton, OH, Harrison Township (06/2015–09/2018), Geology Lead. Conducted oversight of a data gap investigation at a former manufacturing facility with historical chromium and



TCE contamination in soil and groundwater. The TCE groundwater plume impacts an aquifer overlying a drinking water aquifer near public water supply wells. The investigation included installation/sampling of soil borings and monitoring wells to define plume extent. Implemented a remedial pilot test of PlumeStopFe liquid carbon with an injection array to truncate the groundwater plume. Completed pre- and post-injection monitoring to assess the effectiveness of the pilot test. Prepared drilling SOWs, bid specifications, maps and cross sections illustrating results and current site conditions to determine future response actions.

Harrison Road Site, Romulus, MI, EGLE (11/2016–06/2018), Project Manager/Geology Lead. Managed an RI of a former commercial facility used historically to leach silver from film chips using a cyanide solution that discharged leachate onto the ground surface and into storm and surface drains at the site over 30 years ago. Developed and implemented an SOW that included multiple rounds of surface water and sediment sampling of over 1 mile of interconnected surface drains leading to the West Branch of the Ecorse River to assess downgradient impacts to surface water. Completed borings and soil and groundwater sampling in the source area to assess remaining potential risks to on-site workers and surface water associated with residual concentrations of cyanide. Results demonstrated no significant risks exist associated with the past release of cyanide. Managed field personnel reviewed and interpreted results, prepared reports, tracked the budget, reviewed invoices, and conducted monthly client reporting.

Phase II ESA, Milan, MI, Confidential Client (11/2017–02/2018), Geology Lead. Responsibilities included overseeing implementation of Phase II investigation of a petroleum lubricant mixing facility to provide a BEA as part of a property transaction. Developed boring and sampling program; trained and supervised junior personnel on utility clearance, logging borings, well installation, and sampling activities. Conducted technical review of groundwater potentiometric data and mapping of groundwater contaminant distribution results to assess current site conditions.

Baker Oil Site, Marshall, MI, EGLE (09/2015–02/2017), Project Manager/Geology Lead. Managed closure of a former fuel oil distribution property after remediation of vadose zone fuel oil-contaminated soil, with residual groundwater plume and oil-contaminated soil below the water table. Conducted annual groundwater sampling and review and evaluation of groundwater data to conclude no significant risk remains to nearby surface water. Surveyed the residual soil contamination area within the Michigan DOT roadway right-of-way and utility corridor. Implemented an Environmental Liability Agreement between EGLE and Michigan DOT, and installed concrete monuments to demarcate the impacted area for excavation restriction notification. Abandoned remaining monitoring wells and prepared a site closure report. Prepared monthly client reports, tracked budget, reviewed invoices, and maintained client communications.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience	
Chris Sollenberger, P.G., Hydrogeology Lead	16 (P3)	24	
c. Roles and Responsibilities as They Relate to the	RFP		
Responsible for providing hydrogeological expertise and review of sites with complex hydrogeological conditions. The Hydrogeology Lead is a P.G. and will oversee technical staff, assist with interpretations, evaluate site data, and develop or review hydrogeologic interpretation of groundwater contamination			
d. Direct or Consultant Employee	e. Physical Location (City, Sta	nte)	
Direct employee of Weston	Newark, Delaware		
Other Relevant Professional Qualifications:			
Education:			
B.S., Geology – Juniata College			
Training/Certifications:			
<i>Professional Geologist (PA #PG005378); (DE #S4-00</i> Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, System Hazard Communication, 29 CFR 1910.1200; B	01151); 40-Hour/8-Hour Hazard OSHA 29 CFR 1910.120(e)(4); loodborne Pathogens, OSHA 29	ous Waste Site Training Global Harmonization CFR 1910.1030	
Experience Summary:			
of a wide variety of hydraulic and hydrostratigraphic conditions, including groundwater flow in complex settings and flow pathways through karst and fractured bedrock amid a wide range of contamination types. Specializes in environmental/hydrogeological investigation, design/installation of monitoring networks, multimedia sampling, data interpretation (plume mapping, fate and transport modeling), and CSM development and assessment. Over 6 years' experience developing and performing PFAS investigations. Over 10 years developing, performing, and monitoring VI projects (residential, commercial, and industrial), including installing compling ports.			
Relevant Project Experience:			
Wright-Patterson AFB PFAS Investigation and Ren (07/2021–Ongoing), Hydrogeology Lead. Supports tin drinking water for off-base areas near multiple USAF in Responsible for implementing the project scope, which groundwater sampling, surface water sampling, soil sam installation (more than 20 locations), and pumping tests base with four drill rigs and crews. Authored and review used as the investigation-derived waste [IDW] manager daily conferences with the field crew, guiding field crew Coordinates with engineering and chemistry staff to ensi and provides updates directly to USACE. Currently aut ongoing technical support to client and engineering staf removal actions to treat PFOS in soil and PFOS/PFOA	nediation, Dayton, OH, USACH ne-sensitive CERCLA RI and N installations have been affected by included DPT and rotosonic bor npling (combined more than 300 s performed simultaneously on tw wed site-specific plans, including ment and sampling plan for the p ws to resolve technical issues wh sure the completion of tasks whil horing draft data gap assessment of during the development and im in groundwater. Developed the u	E Omaha District TCRAs to assess whether y past AFFF releases. ings at 80 locations, samples), well vo sites located on the the QAPP (which was roject). Participated in en they occurred. he maintaining schedule report and provides aplementation of the updated CSM for the site.	
CNALF Remedial Investigation, Charlestown, RI, U Hydrogeology Lead. Currently supporting this RI of the transformer pit, and a burn pit area in accordance with of former boiler houses. Impacts included tidal and non-tic from groundwater discharging to surface water bodies, Authored work plans (including sampling plans for incre-	USACE Baltimore District (05/2 aree landfills, a PFAS-impacted v CERCLA. Work includes a RCR dal wetlands receiving runoff fro which would require varying lev remental and discrete sampling)	2021–Ongoing), water supply well area, a A investigation of three m the site and impacts rels of mitigation. and QAPPs involving an	

ISM approach and IDW disposal plans. Performs sampling of nearby drinking water sources for PFAS because PFAS was identified in public water supply wells. Serves as technical lead for sampling of PFAS soil samples for source area identification and groundwater well installation, as well investigation of plume delineation, which involves sampling of soil and groundwater at 100 locations. Collects surface water, pore, and sediment samples



and performs source area identification and plume delineation using a lysimeter in accordance with data quality objectives (DQOs) and regulatory criteria. Responsible for developing a CSM based on sampling results. Based on the RI results, an FS may be completed to support a PP and DD to mitigate identified potential risks.

PFAS RI at Fort George G. Meade-Tipton Airfield Base Realignment and Closure Parcel, Fort Meade, MD, USACE Baltimore District (09/2021–Ongoing), Hydrogeology Lead. Currently supporting this project through planning document development. Serves as technical lead for soil and groundwater sampling of approximately 100 locations. RI will include surface water and sediment sampling, source area identification, plume delineation, pore water sampling, and lysimeter sampling. Manages IDW disposal activities on-site and contributes to work plan, CSM, and QAPP development. The 60-month period of performance will include a progressive investigative approach to determine source areas and assess whether contamination has impacted human health and the environment.

PFAS Background Study, Blades Groundwater Site, Blades, DE, EPA Region 3 START VI (10/2020– 05/2021), Hydrogeology Lead. Contracted by EPA to perform a PFAS background study for groundwater for the newly listed Blades Groundwater Site. It was determined that during the Site Inspection sufficient background data had not been collected. Six new wells were installed using rotosonic methods to characterize the groundwater conditions. Developed the work plan for the drilling operations, procured vendors, performed site visits to select locations and confirm access, prepared necessary documents (Field Sampling Plan [FSP] for PFAS sampling and HASPs), and coordinated site activities. Operated as project manager, with activities including attending meetings and conference calls, reviewing invoices, managing the budget, coordinating with the laboratory, coordinating staffing, and managing equipment.

Remediation Activities under CERCLA, Watson Johnson Landfill Superfund Site, Quakertown, PA, EPA Region 3 Remedial Action Contract (RAC) (09/2013–09/2020), Hydrogeology Lead. Oversaw the installation of 30 deep bedrock monitoring and injection wells, construction of access roads for the new wells, and downhole geophysics for this project at a National Priorities List (NPL) site with two OUs consisting primarily of chlorinated solvents, including PFAS. Developed a groundwater model using MODFLOW to map groundwater from the landfill through the site. Performed groundwater sampling, source area delineation, geophysical logging, pump testing, and groundwater modeling to develop a CSM. The site is undergoing LTM to confirm long-term reduction of contamination, with contingency plans for additional injections should rebound occur.

Environmental Investigation, Lower Darby Creek Area, Philadelphia, PA, EPA Region 3 RAC (12/2006–06/2017), Hydrogeology Lead. Supported large, unregulated landfill with contamination discharging to a tidal stream and through shallow groundwater underneath a neighborhood. Investigation and RD were developed to stop the flow of leachate to Lower Darby Creek, eliminating the impact of the landfill. Primary COCs included chlorinated solvents, 1,4-dioxane, and PFAS. Media of concern included deep groundwater, shallow groundwater, vapor, soil, leachate, sediment, and surface water. Developed Triad approach sampling protocol, including decision matrices to determine actions based on results. Conducted drilling oversight for DPT, air rotary, and sonic drilling. Performed project oversight involving logging and sample collection at over 200 locations, database management, and global positioning system (GPS) data collection of locations and elevations for all boring locations. Co-authored groundwater RI report and provided technical support for the FS. Generated a groundwater model for complex, heterogeneous site that included fractured crystalline bedrock underlying estuarine sediment. Performed a tidal influence investigation of the groundwater by using pressure transducers to log the elevation of the stream and nearby wells to determine the approximate extent of groundwater influence. Provided technical data assistance for the development of the HHRA, ERA, and IDW disposal plan.



Solutions;			
a. Name and Title	b. Years of Expe Current Classifi	rience in cation	Total Years of Experience
Terry Bosko, Risk Assessment Lead	21 (P4)		33
c. Roles and Responsibilities as They Relate to t	the RFP		
Responsible for providing technical expertise related to ERAs and/or HHRAs. The Risk Assessment Lead can provide expert review of risk assessments completed by others and can also lead risk assessments for various environmental projects and conditions.			
d. Direct or Consultant Employee	e. Physical L	ocation (City, Sta	ate)
Direct employee of Weston	Lincolnshire,	Illinois	
Other Relevant Professional Qualifications:			
Education:			
M.S., Forest Soils – Virginia Polytechnic Institute a	nd State Universi	ty	
B.S., Forest Science – University of Illinois		2	
Training/Certifications:			
Certified Professional Soil Scientist (CPSS) (#0318 Bloodborne Pathogens, OSHA 29 CFR 1910.1030	87); 8-Hour SHS(C, OSHA 29 CFR	1910.120(e)(4);
Experience Summary:			
for federal, state, and private clients. She has performed, directed, or overseen over 50 risk assessments in the last 5 years. She is proficient in review, statistical evaluation, and interpretation of complex, multimedia environmental data using EPA's ProUCL statistical program; screening of chemicals of potential concern; development of CSM with contaminant fate and transport analysis; and groundwater modeling using EPA's BIOCHLOR and BIOSCREEN groundwater transport models. Expertise in calculation of human health and ecological risk estimates and risk-based cleanup levels for chemicals, explosives, and radionuclides using Risk Assessment Guidance for Superfund methods; EPA's Regional Screening Level (RSL), Preliminary Remediation Goal (PRG), and Vapor Intrusion Screening Level (VISL) online calculators; and EPA's Integrated Exposure Uptake Biokinetic Model (IEUBK) for Lead in Children and Adult Lead Model (ALM). Experienced in use of nationally/regionally recognized EPA guidance (e.g., EPA's Risk Assessment Guidance for Superfund and Ecological Risk Assessment Guidance for Superfund) in developing risk assessments and numerous state risk-based guidance, including EGLE Part 201 and Part 213 Operational Memoranda			
Relevant Project Experience:			
CNALF Remedial Investigation, Charlestown, R Ecological Risk Assessment Lead. Prepared work DoD-related contaminants in soil, sediment, surface freshwater and tidal wetland habitat receptors, and t burn pit area. Analytes at this FUDS include VOCs, metals. Participated in QAPP preparation with the P Munitions Center of Expertise to develop a statistical investigation and background samples for surface so nature and extent of potential ecological risks at eact there is a link between the detected contaminants in to assess whether adjacent freshwater and tidal habit historical site activities. The QAPP has been review prepared so that field sampling can begin in the spri-	I, USACE Baltim plan for ERA to a water, and pore v idal shoreline hab SVOCs, pesticid Project Delivery T ally based ISM sa bil, subsurface soi h site. Lines of ev soil/groundwater tats have been im red by stakeholder	nore District (09/2 ussess potential for water to terrestrial bitat receptors at th es, dioxin/furans, of eam and USACE I mpling design for 1, and sediment that vidence will be use and in sediment/s pacted by constitu- rs, and the final rev	2019–Ongoing), adverse impacts of habitat receptors, ree former landfills and a explosives, PFAS, and Environmental and collection of at will be used to assess ed to evaluate whether urface water/pore water ents associated with vision is currently being

Velsicol Chemical Company Superfund Site, St. Louis, MO, EGLE (01/2014–Ongoing), Risk Assessment Lead. Prepared human health streamlined risk evaluation for the Main Plant, Velsicol Property 1, and the Creamery Warehouse areas (OU-1) to evaluate risks to future residential and/or commercial/industrial users of the property under the assumption that the landfill presumptive remedy is applicable at this site. Following EGLE and EPA risk assessment guidance, quantified risk from soil and groundwater contaminants through



incidental ingestion, dermal contact, inhalation of outdoor particulates from soil, and inhalation of vapors from groundwater use. Also used EPA Johnson and Ettinger model spreadsheets to assess inhalation of indoor vapors through subsurface transfer from soil and groundwater.

Tech Town (Former GM Property), Dayton, OH, City of Dayton (03/2012–Ongoing), Risk Assessment Lead. Prepared individual but similar Property-Specific Risk Assessments for East and West Phases of this project in accordance with Ohio Environmental Protection Agency (OEPA) VAP regulations. Evaluated chemicals that exceed VAP standards, chemicals not listed in the generic default numerical standards tables, and exposure pathways, exposure routes, and receptor populations not considered in the generic standards (i.e., VI to indoor air, groundwater discharge to surface water, and worker exposure in association with a geothermal heating and cooling system). Applied the EPA VISLs and the EPA Johnson and Ettinger model spreadsheets to assess VI pathway. Used the BIOCHLOR model (1) to predict whether COCs in groundwater exceed VAP standards at a travel distance of 0.5 mile from the property boundary; (2) to predict whether COCs in groundwater will discharge to surface water at a concentration above surface water criteria; and (3) to predict a leach-based soil concentration that can leach to groundwater but will not cause VAP standard to be exceeded at 0.5 mile from the property boundary. Developed site-specific cleanup levels for PCBs in support of TSCA risk-based closure.

Enbridge Oil Spill Response, Marshall, MI, EGLE (10/2011–Ongoing), Risk Assessment Lead. At request of EGLE, performed a site-specific background metals evaluation for soil and groundwater to determine whether the July 2010 crude oil release impacted these media. Assessed four target metals (i.e., beryllium, molybdenum, nickel, and vanadium) that are also naturally occurring. This evaluation was performed for EGLE to establish site-specific background concentrations and to assess whether soil and groundwater have been impacted by comparing site concentrations to site-specific background. Prepared technical memorandum and presented methods and results to EGLE and stakeholders. Performed technical review of Enbridge Energy site-specific background metals evaluation for soil in Segment 6 NFA submittal.

Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (01/1998–Ongoing), Risk Assessment Lead. Prepared HHRA/ERA to evaluate the potential human health and environmental impacts associated with former operations under a no-action alternative (i.e., in the absence of remedial [corrective] action) following CERCLA guidance. The HHRA evaluated commercial/industrial users and trespassers and found carcinogenic PAHs and arsenic to pose potential risk; other VOCs, SVOCs, and inorganics were identified at elevated concentrations in isolated locations. The screening level ERA and refinement of contaminants of potential ecological concern demonstrated that implementation of remedial measures to protect human health under industrial land use is anticipated to be adequate to manage potential ecological risks.

Quincy Smelter Site Draft Risk Assessment Report, Franklin Township, MI, National Park Service (NPS) (09/2013–03/2014), Risk Assessment Lead. Prepared Draft Risk Assessment Report for the Quincy Smelter Site as part of phased pre-acquisition environmental due diligence activities. The purpose was to enable the NPS to evaluate and quantify the environmental risks and liabilities associated with the potential acquisition. Evaluated risk to future receptors from heavy metals in surface and subsurface stamp sand and material should redevelopment be undertaken by the NPS. Developed property-specific direct-contact criteria and particulate soil inhalation criteria following EGLE guidance for future receptors, including NPS employees, maintenance workers, and utility workers.

Isle Royale National Park NPS Environmental Restoration, Mott Island Waste Management Site Risk Assessment Report, Isle Royale, MI, USACE and NPS (05/2012–07/2012), Risk Assessment Lead. Prepared Risk Assessment Report to summarize previous investigation activities, site assessment activities, and subsequent risk assessment activities demonstrating that the buried debris do not pose an unacceptable risk to human health or the environment. Developed site-specific soil direct-contact criteria for lead and arsenic for an adult NPS employee, a child of the NPS employee, and an adult NPS maintenance worker. Conferred with EGLE on development of site-specific direct-contact criteria to ensure compliance with state guidance.


Rock Harbor Lodge Site NFA Report, Isle Royale, MI, USACE and NPS (08/2011–01/2012), Risk Assessment Lead. Developed site-specific direct-contact criteria for an NFA Report to assure EGLE that sufficient corrective action has been undertaken to address diesel contamination identified at the Rock Harbor Lodge Site. Chemicals of concern included carcinogenic PAHs, and exposed populations included NPS employees, park visitors, and utility workers. Conferred with EGLE risk assessor to ensure site-specific directcontact criteria met EGLE requirements.

Risk Assessment, Manistique Harbor, MI, EPA (05/2004–06/2004), Risk Assessment Lead. Performed a streamlined environmental risk assessment (SERA) after PCB-contaminated sediments were dredged. The SERA evaluated both human health and ecological risk from residual PCBs in sediment. The SERA was conducted following the National Research Council's A Risk Management Strategy for PCB-Contaminated Sediments guidelines. The streamlined approach incorporated all components of a risk assessment (i.e., data evaluation, exposure assessment, toxicity assessment, and risk characterization), but focused on the primary exposure pathway at this site (i.e., consumption of PCB-contaminated fish). Developed human health, riskbased cleanup goals (CUGs) for sediment that correspond to a cancer risk of 10^{-6} or a hazard quotient of 1 based on standardized equations that combine exposure assumptions with EPA toxicity data. CUGs for sediment were calculated for both sport fishermen and subsistence fishermen. These CUGs were then compared to sediment concentrations to estimate potential risk to human receptors. Ecological risk-based CUGs (ECUGs) that correspond to no-observed-adverse-effect level and a lowest-observed adverse-effect level were developed for sediment. The ECUGs were developed for target receptors that were selected to represent all exposed receptors with exposed receptors that have comparable habitat requirements, feeding preferences, and life histories. ECUGs for sediment were calculated for the following receptor organisms: piscivorous bird (herring gull); piscivorous mammal (river otter); aquatic insectivore-bird (spotted sandpiper); and aquatic insectivoremammal (mink).

FSP and Data Evaluation Reports, Manistique River and Harbor Area of Concern (AOC), Manistique, MI, EPA Region 5 (11/2003–04/2005), Risk Assessment Lead. Worked with an interdisciplinary team of scientists, engineers, and statisticians to develop an FSP to collect the sediment and fish tissue data and other resources needed to perform HHRAs/ERAs for the post-dredging conditions in the Manistique River and Harbor AOC. This FSP also served as the basis for an overall long-term management strategy for the AOC. Prepared HHRAs/ERAs to evaluate potential risks from residual PCB-contaminated sediments using sediment, surface water, and fish tissue collected under the FSP. Upon completion of 2004 and 2005 field investigations, assisted in preparation of data evaluation reports that statistically evaluated the results of the investigation, which was used to help delist the AOC.



a. Name and Title	b. Years of Experience in Current Classification	Total Years of Experience
Suraj Shankar, Cost Estimating Lead	6 (P3)	16
c. Roles and Responsibilities as They Relate to the RFP		
Responsible for preparing and reviewing cost estimates that may be required for project sites. The Cost Estimating Lead will assist the project team in developing accurate and detailed cost estimates for various project related tasks such as O&M, RAs, and remedial system designs.		
d. Direct or Consultant Employee	e. Physical Location (City, Sta	ite)
Direct employee of Weston	Houston, TX	
Other Relevant Professional Qualifications:		
Education:		
M.S., Geographic information Systems – University of Southern California M.S., Civil Engineering and Water Resources/General – University of Southern California M.S., Environmental Engineering – University of Southern California B.E., Environmental Engineering – Visveswaraiah Technological University Training/Certifications:		
40-Hour/8-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3); 8-Hour SHSC, OSHA 29 CFR 1910.120(e)(4); Bloodborne Pathogens, OSHA 29 CFR 1910.1030		
Experience Summary:		
upgrades. He has prepared, directed, or overseen cost estimates for over 500 remediation projects in the last 5 years and now leads Weston's Cost Estimating Group. Prior to focusing on cost estimation, he served as an engineer and construction QC manager on remediation projects, gaining valuable perspective on construction challenges, practical implementation approaches, risks, and cost control management. This early career experience is often drawn upon when considering constructability and cost projections.		
Relevant Project Experience:		
CNALF Remedial Investigation, Charlestown, RI, USACE Baltimore District (09/2019–Ongoing), Cost Estimating Lead. Supported and developed detailed cost estimates, including but not limited to feasibility estimates associated with RI of three landfills, three former boiler houses, a transformer pit, and a burn pit area of the World War II-era naval air training facility that closed in the early 1970s. Project includes RCRA evaluation of residual soil contamination at the boiler house and CERCLA evaluation of PCBs at the transformer pit as well as sampling of nearby on-site and off-site drinking water sources to assess DoD-related PFAS impacts.		
Groundwater Extraction and Treatment, Confidential Manufacturing/Chemical Facility, Chicago, IL, Confidential Client (12/2010–Ongoing), Cost Estimating Lead. Supports development of cost estimates through design development. Develops multiple scenarios and alternatives of cost estimates for sheet pile		
installation. Evaluates subcontractor bids for cost reasonableness.		
PBR, Joint Base Elmendorf-Richardson and Clear Air Force Station, AK, AFCEE (04/2012–12/2020), Cost Estimating Lead. Developed cost estimate to perform all necessary environmental construction and engineering activities to meet the minimum performance objectives pursuant to CERCLA, RCRA, and state regulations. Cost was developed for 150 sites. The purpose was to maximize the number of site closures or to advance sites as close to closure as practicable during the period of performance in a cost-effective manner, reducing the overall lifecycle cost for the government. Developed cost optimization strategies, including risk mitigation techniques, cost-loaded schedule, sustainability analysis, and cost-tracking to provide best value to the government and achieve successful execution of the program. Used RIB Construction Suite, RACER [®] , Microsoft [®] Project, and other cost-tracking tools for cost optimization and lifecycle cost estimation.		
Non-DoD, Non-Operational Defense Sites RI/FS Program for the Eastern Region of the United States, USACE Baltimore District (09/2013–12/2019), Cost Estimating Lead. Developed a cost estimate to perform		

USACE Baltimore District (09/2013–12/2019), Cost Estimating Lead. Developed a cost estimate to perform all field activities, including RI, FS, and interim removal action to meet minimum performance objectives,



including munitions response and feasibility analysis and construction. Created cost optimization strategies, including risk mitigation techniques and sustainability analysis, and supported cost tracking to provide best value to the government and to achieve successful execution of the program.

Environmental Surveys and Facility Assessments, Various U.S. Locations, USPS (01/2012–12/2017), Cost Estimating Lead. Performed facility assessments and developed estimates on more than 50 building facility assessments, benefit-cost-analyses (BCAs), and facility re-inspection assessments for the USPS. Developed estimates for facilities impacted by natural disasters, hurricanes, rain infiltration, earthquakes, and fires. Estimates included storm damage from floods, dry-outs, mold and debris cleanup, tree removal, and temporary facility protection, along with any required disposal. BCAs also included thorough architectural, structural, civil, HVAC, plumbing, and electrical evaluation of a facility, comprising all interior and exterior components of the building, parking area, and utility and operating systems.

Water Treatment Plant Upgrades, DE, Delaware County Regional Water Quality Control Authority (12/2010–11/2017), Cost Estimating Lead. Developed several cost estimates and scenarios from design to construction along with feasibility estimates. Estimates included facility expansion and upgrades with combined sewer system modeling and its corresponding waste load management.

Facility Upgrades, National Guard Recruitment Centers, USACE (12/2012–08/2017), Cost Estimating Lead. Developed estimates and logistics for site assessment, data management, and renovation/upgrades of more than 330 national guard recruiting facilities across various locations in the country. Logistics was a significant portion of developing reasonable estimates. Led verification and updating of the estimates based on individual site conditions on a fast-paced project that was successfully completed with an extended estimating team.

PBR, Tyndall AFB, Panama City, FL, USAF (01/2015–12/2015), Cost Estimating Lead. Developed cost estimate for 36 sites. The purpose was to maximize the number of site closeouts or advance sites as close to site closeout as practicable during environmental construction and engineering activities while meeting performance objectives pursuant to CERCLA, RCRA, and state regulations. Created cost optimization strategies, including risk mitigation techniques, cost-loaded schedule, sustainability analysis, and cost tracking. Utilized RSMeans and RACER[®] to develop and update estimates.

Missouri River Levee Emergency Repair and Restoration, SDIC Contract, Various Locations, USACE Omaha District (01/2014–12/2014), Cost Estimating Lead. Supported several TOs under the SDIC contract for USACE. Successfully bid several TOs and provided support to the team with value engineering and detailed estimation during the construction phase. Developed cost estimates and technical execution strategy or repair and emergency maintenance of levee structure, including reconstruction of degraded levees in the flood season. The time-critical construction work was cost optimized to provide USACE best value, achieving the primary objective of protecting life and property along the banks of the Missouri River. Completed more than \$120M of work spanning over 40 miles of levee on time and within budget.

CERCLA Environmental Services, Letterkenny Army Depot, Chambersburg, PA, U.S. Army Environmental Command (USAEC) (01/2013–12/2013), Cost Estimator. Utilized historical data, RSMeans, and RACER[®] to develop and update estimates for investigation and remediation of 45 sites tracked under 15 separate OUs across two NPL sites with commingled, multimedia contaminants. Also supported cost estimate development during the conceptual design process, constructability review and feasibility analysis, and construction.

Development of 5-Year Strategic Best Management Practice (BMP) Implementation Plan, San Diego, CA, City of San Diego (05/2007–12/2009), Project Engineer/Cost Engineer. Developed a strategic plan to meet NPDES and total maximum daily load requirements for BMP implementation for the City of San Diego Stormwater Division. Developed several concept designs for pilot implementation. Also conducted desktopbased property evaluation for implementation of several different kinds of BMPs within the City.

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APPENDIX B-1: ASBESTOS / LEAD / MOLD / BIOHAZARD / FREE PRODUCT / REGULATED WASTE SURVEY / ABATEMENT

Project 1 Reference Information

PROJECT NAME:

United States Postal Service (USPS) – Environmental Preparedness, Response & Recovery Services (EPRRS) Contracts: Asbestos/Lead/Mold/Biohazard Survey and Abatement (Section 3, Table 2, Project No. 19)

PROJECT ADDRESS:

USPS Facilities Nationwide (including Michigan)

KEY PERSONNEL:

J. Ruiz | C. Douglas | M. Bakkila | M. Castillo | M. Abbott | K. Mooney | E. Coggin | K. Frey | J. Myers | V. Dello Russo | T. Bosko | S. Shankar | T. Lyon | O. McMillen | T. Oberman

PROJECT CITY / STATE / ZIP:

Nationwide (including Michigan)

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Jeremy Merlo – USPS | 860-285-7024 | Jeremy JMerlo@usps.gov

PROJECT DESCRIPTION:

Since 2006, Weston has successfully delivered more than \$30M annually in cost-efficient services for both urgent and non-urgent environmental preparedness, response, and recovery projects at USPS facilities nationwide under two successive EPRRS IDIQ contracts. Work under both contracts has overlapped within the last 5 years, and during that time Weston completed assignments at more than 170 facilities in Michigan.

Project assignments have included sampling, abatement, and restoration of asbestos and mold; stabilization and restoration of lead-based paint (LBP); facility damage assessments; facility cleanup and restoration; response plans; UST and AST repairs, alterations, and cleanup; hazardous waste management and disposal; spill release and cleanup; soil/groundwater remediation; recovery, decontamination, and sanitization of bio-contaminated mail; and other environmental and biohazard related projects.

In the last 5 years, Weston completed more than 1,650 asbestos-related projects ranging from survey to abatement; renovation or repair, including drilling and anchoring into or through asbestos-containing building material; removal of duct work/other interior infrastructure for abatement; disposal; and the decontamination of impacted equipment.

Weston has completed more than 775 lead-related projects in the past 5 years, including LBP survey, stabilization, renovation, and repair and disposal. We routinely ensure compliance with requirements of the Occupational Safety and Health Administration (OSHA) Lead in Construction Standard (29 Code of Federal Regulations [CFR] 1926.62) and any applicable state/commonwealth and local regulations and policies; prevent lead exposure to postal employees, contractors, and the public; and ensure proper removal/disposal of lead-containing materials.

In the last 5 years, we completed more than 225 mold-related projects at USPS facilities, involving survey and/or abatement of mold, including removal, disposal, replacement of impacted building materials; and water intrusion-related corrective construction measures to inhibit mold growth. We develop mold remediation plans prior to remediation and conduct restoration activities when required, per USPS building specifications.

In 2019 and 2022, Weston received the USPS Supplier Performance Award, which recognizes the level of performance we have provided these contracts in support of the USPS mission nationwide.

"Over the course of the past year, you have brought a lot to the table, responding to our challenges in ways that go far beyond typical off the-shelf solutions. Your commitment to excellence was instrumental in helping us deliver convenience and value to our customers." — Former Postmaster General/USPS CEO, 2019.

Completion date: Ongoing.

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Project 2 Reference Information

PROJECT NAME:

Tech Town (Former General Motors [GM] Property): Asbestos and Free Product Survey and Abatement to Support Site Remediation/Redevelopment (Section 3, Table 2, Project No. 16)

PROJECT ADDRESS:

300 Taylor Street

KEY PERSONNEL:

M. Bakkila | J. Ruiz | C. Douglas | M. Abbott | K. Mooney | B. Fletcher | K. Frey | J. Myers | V. Dello Russo | T. Bosko | S. Shankar | J. Emmendorfer | S. LeTarte | T. Lyon | K. Martindale | O. McMillen | T. Oberman

PROJECT CITY / STATE / ZIP:

Dayton, Ohio 45402

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Christopher Lipson - City of Dayton | 937-333-3820 | Chris.Lipson@daytonohio.gov

PROJECT DESCRIPTION:

Tech Town is a former GM RCRA facility where the primary constituents of concern include chlorinated volatile organic compounds (CVOCs) and polychlorinated biphenyls (PCBs) in soil and groundwater. The City of Dayton is working with the current property owner, Ohio Environmental Protection Agency (OEPA), and U.S. Environmental Protection Agency (EPA) to address remaining impacts from historical facility operations and redevelop the property. Weston has served the City of Dayton on Tech Town remediation/redevelopment activities since 2004, and we are currently providing strategic consulting and engineering services regarding environmental site conditions as they pertain to redevelopment and stakeholder involvement.

Weston provided oversight support during the GM building demolition phase of the project, which included asbestos surveys and abatement. We also prepared specifications and provided oversight, waste characterization profiling, and soil management planning for UST removals; new utility trenching; and "hotspot" soil excavations.

Our team coordinated Toxic Substances Control Act (TSCA) approvals for on-site reuse and off-site disposal of PCB-containing soil and building materials. Approval and implementation of an engineered cap was also obtained under TSCA to address one area of interest. Semi-annual groundwater monitoring, including measurement of light non-aqueous phase liquid (LNAPL), is currently required to demonstrate the stability of the PCB impact. LNAPL recovery via a down-well absorbent sock was completed as part of an OEPA-approved Remedial Action Plan (RAP) and EPA-approved work plan through 2021. Subsequent monitoring has not identified LNAPL in the treatment area. A sheet pile barrier is in place in a separate area of the site to prevent off-site migration of LNAPL. Ongoing monitoring has confirmed the effectiveness of this remedy.

Weston designed and installed an ozone sparge/soil vapor extraction (SVE) system to address residual CVOC contamination in soil and groundwater near a former UST. From system startup in 2015 through 2019, CVOC



Weston performed LNAPL (free product) recovery via a down-well absorbent sock at the Tech Town Site. Ongoing monitoring has confirmed the effectivness of this remedy.

concentrations decreased at all monitoring points within the treatment area. All locations have achieved initial treatment goals based on compliance with potable use standards 0.5 mile from the property. The SVE system includes 10 extraction wells spaced across the sparge well network to provide vacuum control. Extracted soil-gas sample results demonstrated that the ozone was highly effective at oxidizing the CVOCs in situ. The SVE system has continued to operate after shutdown of the ozone sparge system to reduce the potential for vapor intrusion (VI) and off-site migration of residual VOC concentrations in the vadose zone.

Completion date: Ongoing.

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Project 3 Reference Information

PROJECT NAME:

USPS Architecture & Engineering (A-E) Environmental Services Multi-Area #1 Indefinite Quantity Contract: Asbestos/Mold/Lead Survey and Abatement (*Section 3, Table 2, Project No. 18*)

PROJECT ADDRESS:

USPS Facilities Nationwide (including Michigan)

KEY PERSONNEL:

J. Ruiz | K. Frey | J. Myers | V. Dello Russo | O. McMillen

PROJECT CITY / STATE / ZIP:

Nationwide (including Michigan)

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Jeremy Merlo – USPS | 860-285-7024 | JeremyJMerlo@usps.gov

PROJECT DESCRIPTION:

Weston provided USPS with environmental services for investigative surveys and reports (asbestos, lead, mold, biohazards); development of construction cost estimates; remedial design (RD) services; and observation and support services. Work under this contract is nationwide. Several relevant examples of tasks performed under this contract are summarized below. Due to our performance on this contract, the USPS recently awarded Weston a second Indefinite Quantity Contract for this area.

Water Intrusion Investigation, Detroit Network Distribution Center (NDC), MI. Weston conducted a site visit to assist USPS with water intrusion issues in the Gate House at the Detroit NDC that required significant demolition and mold removal. During the interviews, we learned that personnel had observed water flowing out of the geothermal conduit that penetrates the floor of the basement. Through subsequent site visits, our visual observation revealed that water was being expelled from the geothermal conduit at an estimated rate of 1 to 3 fluid ounces per day. Weston personnel noticed another location of water infiltration. An area under the eastern stairwell that had previously been dry had, by the end of the investigation, been completely saturated where the foundation intersects the wall. Following the Water Infiltration Assessment, Weston was tasked to further investigate options to mitigate the water intrusion issue in the NDC Gate House. We determined that an installation of a footer drain beneath the building's foundation would be required to solve the facility's water intrusion issue. Prior to installing the footer drain, we identified the need for a subsurface investigation to determine the proper configuration for a water intrusion remedy for the Gate House. The soil types surrounding and under the building, elevation of groundwater, and the thickness of the backfill placed under the slab are critical details necessary to determine the best method to control water infiltration. The data obtained from this work allowed us to better understand the dynamics of water infiltration and propose a cost-effective mitigation system to eliminate water intrusion in the lower level of the Gate House. The proposed subsurface investigation scope of work (SOW) included an underground utility location, geotechnical investigation, piezometer installation, global positioning system (GPS) survey, and concrete coring. After the subsurface investigation was complete, Weston recommended that the geothermal system be abandoned and that it be completed prior to implementing the selected water infiltration solution.

LBP and PCB Survey/Sampling, Lincoln Main Post Office, IL. Weston determined that interior and exterior areas of the facility required LBP stabilization, including the original windows located behind the facility storm windows. To stabilize the LBP on the original facility windows, and to remedy deteriorating window conditions, the original windows required new glazing compound and caulk. It was determined that the current storm windows were likely installed during a time period when PCB-containing caulk was commonly used. Therefore, we proposed that the caulk and glazing compound located on the windows be analyzed for PCBs prior to removal and replacement activities. The laboratory analytical results indicated special remediation or disposal activities are not required for the window renovation/repair work at this facility except that the waste must be disposed of in a landfill that is permitted to accept the waste.

Weston Solutions, Inc. | Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal. [2022-143641] Asbestos-Containing Building Materials – Flooring Encapsulation, More than 140 USPS Facilities in 19 States Nationwide. Many USPS facilities have flooring materials (tile or mastic) that are suspected of containing asbestos. When these flooring systems are damaged by normal wear or by accident, to prevent exposure or disturbance of the asbestos-containing building material, Weston has generally recommended encapsulation of the floor as an alternative that is more cost-effective and more protective of human health than abatement. The encapsulation process overseen by Weston involved application of a cementitious leveling compound to smooth the existing floor surface, the overlay of laminated membrane material to form an airtight encasement, and the layering of a final surface of quartz-resilient tile. Epoxy transition strips were installed at the edge of the flooring to transition to the existing floor. Because no manipulation or removal of asbestos was performed as part of the encapsulation process, air monitoring or clearance sampling were not necessary. Installation was conducted in accordance with manufacturing specifications and applicable OSHA, EPA, and state regulatory requirements. Following encapsulation, equipment and facility contents were returned to their original locations, and waste from the installation process was consolidated, bagged, and removed from the facility.

Asbestos Abatement Project Monitoring Services, Multiple Northeast Facilities. Weston provided a licensed Asbestos Project Monitor to perform abatement monitoring services for multiple asbestos abatement projects throughout the Northeast. Background and perimeter air samples were collected during abatement activities, and all samples were analyzed on-site by a National Institute for Occupational Safety and Health (NIOSH)-certified microscopist via phase contrast microscopy. Abatement was considered to be complete and compliant when analytical results indicated that the background/perimeter samples were below the EPA and state-specific re-occupancy clearance level of 0.01 fibers per cubic centimeter. Following abatement projects, an ASTM International (ASTM) E1368 Final Visual Clearance Inspection of the abatement work area was performed to verify that no visible asbestos materials remained in the specified work area.

Asbestos Abatement and Building Restoration, Multiple Northeast Facilities. Weston managed the abatement of asbestos-containing building materials and building restoration at multiple locations throughout the northeastern United States. Flooring material, wall material, and insulation are common asbestoscontaining building materials found in postal service facilities, which must be abated if they pose a threat of asbestos exposure to the public. Typical SOW for each asbestos abatement project begins with a thorough investigation of historical asbestos surveys to determine the asbestos content of the materials requiring repair. If the past asbestos surveys do not clearly determine the asbestos content of the materials in question, then Weston performs a limited potential asbestos-containing material (ACM) survey to determine the asbestos content. Once the ACM in need of abatement has been determined, Weston procures the appropriate qualified subcontractors to perform the abatement, and coordinates oversight and air monitoring to be performed by a separate third party. State regulatory guidelines for air sampling during asbestos abatement and clearance procedures vary by state, and we ensure that subcontractors perform the abatement and monitoring work in conformance with federal and state-specific regulations. Once abatement is completed, Weston manages restoration of the areas of the facility from which the building materials were removed, including installation of new flooring, walls, and insulation as needed. We ensure that building restoration adheres to USPS specifications, including type and color of building materials, to maintain building materials quality, as well as a consistent aesthetic.



APPENDIX B-2: BROWNFIELD DEVELOPMENT

Project 1 Reference Information

PROJECT NAME:

Tech Town (Former GM Property): Remediation/Redevelopment of Brownfield Site (Section 3, Table 2, Project No. 16)

PROJECT ADDRESS:

300 Taylor Street

KEY PERSONNEL:

M. Bakkila | J. Ruiz | C. Douglas | M. Abbott | K. Mooney | B. Fletcher | K. Frey | J. Myers | V. Dello Russo | T. Bosko | S. Shankar | J. Emmendorfer | S. LeTarte | T. Lyon | K. Martindale | O. McMillen | T. Oberman

PROJECT CITY / STATE / ZIP:

Dayton, Ohio 45402

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Christopher Lipson – City of Dayton | 937-333-3820 | Chris.Lipson@daytonohio.gov

PROJECT DESCRIPTION:



Former GM facility prior to demolition.

The Tech Town project is a former GM RCRA facility. This 24-acre brownfield property is located within an area of Dayton that has been targeted for revitalization and redevelopment. In addition to the ongoing on-site redevelopment, remediation and risk-mitigation efforts at the site have prompted redevelopment of several adjacent properties, currently exceeding \$100M.

The primary constituents of concern include CVOCs and PCBs in soil and groundwater. The City of Dayton is working with the current property owner, OEPA, and EPA to address remaining impacts from the historical facility operations and redevelop the property. Weston has been serving the City of Dayton on the Tech Town remediation/redevelopment activities since 2004. Weston is currently providing strategic consulting

and engineering services regarding environmental site conditions as they pertain to redevelopment and stakeholder involvement.

The project involved investigation of impacts to soil and groundwater (including the installation of over 200 soil borings and over 100 monitoring wells), active remediation of a former chlorinated solvent release, and

implementation of a TSCA Site-Wide Risk-Based Management Plan to address PCBs. Weston provided oversight support during the building demolition phase of the project. Weston has also prepared specifications and provided oversight, waste characterization profiling, and soil management planning for UST removals, new utility trenching, and "hotspot" soil excavations. Weston has coordinated TSCA approvals for on-site reuse and off-site disposal of PCB-containing soil and building materials. Approval and implementation of an engineered cap was also obtained under TSCA.

Currently, Weston operates two SVE treatment systems for in situ soil treatment and vapor migration control, and two active sub-slab vents for VI mitigation. Weston conducts performance monitoring for the SVE treatment systems and provides monitoring of the active vents at one of the newly constructed buildings. An ozone



Tech Town facility shown here with construction underway. We ensured that the treatment system enclosures were constructed to match the new Tech Town building design.

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sparging system was also operated previously for in situ groundwater treatment. To maintain the desired aesthetics for the new development, the SVE and ozone sparge system enclosures were integrated into the new building design.

Weston has prepared Property-Specific Risk Assessments as the basis for risk-based remedial action (RA) planning. In response to changing regulations, Weston has also recently completed additional off-property investigations to ensure the volatilization to indoor air pathway has been adequately addressed both on- and off-property. All data for the project are maintained in a project database and assigned GPS coordinates for consistent mapping through a geographic information system (GIS).

Weston provides consultation to the City and developer on various aspects of the infrastructure and placement; proposed building construction projects; geothermal well design; National Pollutant Discharge Elimination System (NPDES) permit acquisition, sampling, monitoring, and reporting; and vapor mitigation systems.

Completion date: Ongoing.

Project 2 Reference Information

PROJECT NAME:

Mack Avenue Site: Remediation/Redevelopment of Brownfield Site (Section 3, Table 2, Project No. 11)

PROJECT ADDRESS:

3300 Mack Avenue

KEY PERSONNEL:

C. Douglas | M. Abbott | J. Myers

PROJECT CITY / STATE / ZIP:

Detroit, Michigan 48207

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Beth Vens – EGLE | 586-753-3825 | VensB@michigan.gov

PROJECT DESCRIPTION:

The Mack Avenue Site is a brownfield property (former leaking underground storage tank [LUST] site) that was underutilized and required remediation prior to facilitating redevelopment. The property was formerly used as a City of Detroit police station, and when the City obtained ownership, they determined it should be repurposed for beneficial use.



Weston was responsible for procuring the TC and providing oversight of excavation, transportation, and disposal activites at the Mack Avenue Site, removing petroleumimpacted source area soils and ultimately enabling the site to be redeveloped for beneficial use.

Weston completed a site investigation characterizing soil and groundwater contamination, information that was used to prepare the biddable specifications and to develop quantities of material requiring removal. A significant amount of groundwater requiring remediation was not encountered.

We then prepared biddable specifications, assisted EGLE during the advertisement and bidding process, coordinated with the selected trade contractor (TC), and conducted oversight of the excavation, transportation, and off-site disposal of petroleum-contaminated soil.

The excavation activities were conducted to achieve the EGLE goal of removing petroleum-impacted source area soils and to allow for redevelopment of the brownfield site as a homeless shelter.

Weston conducted oversight of the TC during soil excavation and disposal activities. A total of 2,592 tons of contaminated soil were removed and disposed of at a landfill as nonhazardous material. Following removal of the contaminated



soil, the excavation was backfilled, compacted, and resurfaced. Weston also conducted verification of soil remediation (VSR) sampling from the excavation prior to backfilling. Weston prepared a comprehensive Construction Summary Report that documented project activities. The excavation activities, as designed and implemented, successfully removed the mass of impacted soil and eliminated potential risks to human health and the environment.

Completion of excavation and restoration activities have allowed the beneficial reuse and redevelopment of the Mack Avenue Site to move forward.

Completion date: April 2018.

Project 3 Reference Information

PROJECT NAME:

Philadelphia Street Site: Remediation/Redevelopment of Brownfield Site (Section 3, Table 2, Project No. 12)

PROJECT ADDRESS:

665 East Philadelphia Street

KEY PERSONNEL:

C. Douglas | M. Abbott | J. Myers | T. Lyon | O. McMillen

PROJECT CITY / STATE / ZIP:

Detroit, Michigan 48202

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Beth Vens – EGLE | 586-753-3825 | VensB@michigan.gov

PROJECT DESCRIPTION:

The Philadelphia Street Site is a brownfield property that was the former location of a gasoline service station, and was subsequently impacted by LUSTs. Contaminated soil was present at the site and required removal to facilitate the redevelopment and reuse of this brownfield property.

Weston coordinated with EGLE, the City of Detroit, and the State of Michigan Land Bank. We prepared biddable specifications using DCSPEC and assisted EGLE during the advertisement and bidding process. Following contract award, we coordinated with the selected TC and conducted oversight of the excavation, transportation, and disposal of petroleum-contaminated soil from the site. The excavation activities were

conducted to achieve EGLE's goal of removing petroleumimpacted source-area soils, allowing for redevelopment of the brownfield property.

Weston completed a site investigation characterizing soil and groundwater contamination and used this information to complete the biddable specifications and develop material quantities requiring removal. A total of 3,900 tons of contaminated soil and 7,850 gallons of contaminated water were removed and properly disposed of as non-hazardous materials. Following removal of the contaminated soil, the excavation was backfilled, compacted, and resurfaced. Weston completed VSR sampling from the excavation prior to backfilling. The TC, under the supervision and direction of Weston, successfully removed impacted soil and groundwater, eliminating any potential risks to human health and the environment. This ultimately allowed for the beneficial reuse and redevelopment of the Philadelphia Street Site.



Weston provided EGLE with environmental services ranging from site inspection to TC procurement and oversight, resulting in removal of 3,900 tons of contaminated soil and 7,850 gallons of contaminated water, enabling the redevelopment and beneficial use of the Philadelphia Street site.

Completion date: April 2020.



APPENDIX B-3: ECOLOGICAL RISK ASSESSMENT / FORESTRY AND LAND MANAGEMENT / WETLAND MITIGATION / STREAMS AND LAKES RESTORATION

Project 1 Reference Information

PROJECT NAME:

Velsicol Chemical Co. Superfund Site: ERA and Stream Restoration (Section 3, Table 2, Project No. 20)

PROJECT ADDRESS:

500 Bankson Street

KEY PERSONNEL:

C. Douglas | J. Ruiz | J. Myers | T. Bosko | T. Lyon | O. McMillen

PROJECT CITY / STATE / ZIP:

St. Louis, Michigan 48880

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Erik Martinson – EGLE | 517-285-3978 | MartinsonE@michigan.gov

PROJECT DESCRIPTION:

The Velsicol Chemical Company Superfund Site, located along the Pine River in St. Louis, MI, produced a variety of chemicals that resulted in the contamination of soils and groundwater on-site and within the surrounding areas. These contaminants include non-aqueous phase liquid (NAPL), benzene, chlorobenzene, vinyl chloride, dichlorodiphenyltrichloroethane (DDT), dibromochloropropane (DBCP), and numerous other contaminants. Historical releases from the site resulted in contamination of sediment and floodplain soil along the Pine River downstream from the site.

Weston conducted baseline assessment activities in Operable Unit (OU)-2 of the site, which is the adjacent Pine River downstream of the St. Louis hydroelectric dam. We performed sediment sampling, surface water sampling, floodplain soil sampling, mapping, and biota sampling to determine baseline contamination levels of site-related constituents in the downstream ecosystem.



Weston performed floodplain soil sampling to determine baseline contamination levels of siterelated constituents in the downstream ecosystem at the Velsicol Site.

Follow-up investigation activities completed by our team included fish sampling, sediment sampling, and sediment deposit mapping to address data gaps. The baseline assessment was conducted to establish pre-remedial site conditions and to collect data for use in both human health and ecological risk assessments.

Weston reviewed and assisted in the completion of a comprehensive ecological risk assessment (ERA) of OU-2. The ERA was completed in support of the investigation of OU-2 and incorporated all of the data collected during baseline assessment activities. The data included sediment, floodplain soil, surface water, and biota samples collected from the 25mile-long study area of OU-2 and from two different reference areas. We collected these samples for the analysis of unique site-related compounds, including pesticides and fire retardants.

The ERA identified the chemicals of concern and the various receptors potentially at risk of exposure to the chemicals of concern. Ecological receptors at significant risk of exposure were identified as fish and benthic macro-organisms; plants; piscivorous birds (e.g., bald eagle), omnivorous birds, and carnivorous birds; and vermivorous mammals. Risks of exposure were determined to be primarily from DDT and polybrominated biphenyls (PBBs). Sediment and floodplain remedial goals were established for future cleanup using the data and results of the ERA.



The ERA was completed after an involved process where many stakeholders and various experts provided input. To successfully complete the ERA, Weston coordinated with all stakeholders, performed an initial review, and conducted technical reviews of subsequent iterations to ensure the extensive comments and requested changes were incorporated within the final document.

Completion date: Ongoing.

Project 2 Reference Information

PROJECT NAME:

Former Buck Mine Site: Stream Restoration (Section 3, Table 2, Project No. 7)

PROJECT ADDRESS:

Caspian, Iron County

KEY PERSONNEL:

M. Bakkila | J. Ruiz | C. Douglas | M. Abbott | K. Mooney | K. Frey | V. Dello Russo | O. McMillen

PROJECT CITY / STATE / ZIP:

Caspian, Michigan 49915

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Chris Austin - EGLE | 906-235-8039 | AustinC@michigan.gov

PROJECT DESCRIPTION:

The former Buck Mine Site is a complex of interconnected iron mines that operated for roughly 60 years. The site includes ponds and a wetland, and is bordered on the east by almost 20 acres of waste rock, and on the west by the Iron River, a Blue-Ribbon brook trout stream that eventually discharges into Lake Michigan.

Weston has provided long-term solutions for acid mine drainage at the former Buck Mine Site for over 20 years. Our key project activities included optimization of the remediation approach for acid mine drainage via former iron mine and related habitat restoration, long-term maintenance and monitoring, and optimization of the system performance to maintain and improve the quality of surface water discharging from the site.

Water percolating through the mine's waste rock creates a weak sulfuric acid that leaches iron, nickel, copper, zinc, and other contaminants at concentrations acutely toxic to aquatic organisms present at the site. Historically, the acidic waters entering the Iron River have resulted in yellowish-brown hydroxides (commonly known as "yellow-boy") on the river bottom. Yellow-boy affects fish respiration, reproduction, and habitat, as well as water clarity.

An interim remedial system was installed, which contains and diverts the percolating water through a series of interconnected ponds. As the metals-laden water passes through the interim remedial system, the pH rises, causing metal hydroxides to form as precipitate, which are contained in the ponds before the water enters the Iron River. Limestone boulders were placed in low-pH



A passive treatment pond at the former Buck Mine Site, where precipitation of metals resulted in discoloration of the water. Weston evaluated conditions of the interim passive remedial system and provided recommendations to optimize system components, resuling in a longterm solution for the acid mine drainage.

groundwater seep areas to lower the acidity. Weston evaluated the conditions of the existing, interim passive remedial system and provided recommendations that would optimize existing system components and provide a long-term solution for the acid mine drainage.





Weston manages ongoing water quality testing at the treatment pond to ensure efficiacy of the passive remedial system, which provides EGLE with an economic solution that is protective to the health of the Iron River and surrounding community. We continue to provide routine maintenance and monitoring services, including field inspections; water quality measurements (dissolved oxygen, temperature, pH, specific conductance, oxidation-reduction potential, and turbidity); field sample collection; flow measurement; identification of system enhancements; and technical reporting.

Subsequent water quality readings demonstrate improved conditions as the water migrates through the system ponds and wetland area into the river. In addition to physically observing the improved river quality, the field measured parameters confirm the clarity of the water and acceptable pH and dissolved oxygen concentrations. Results of a biological survey of the Iron River conducted by EGLE also confirmed the system effectiveness. The passive system ultimately provides an economical solution that is protective of the river and community.

Completion date: Ongoing.

Project 3 Reference Information

PROJECT NAME:

Enbridge Oil Spill Response: Restoration of Wetlands and Streams (Section 3, Table 2, Project No. 6)

PROJECT ADDRESS:

Marshall, Michigan and Kalamazoo River

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Castillo | J. Myers | V. Dello Russo | T. Bosko | J. Emmendorfer | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Marshall, Michigan and Kalamazoo River

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Donovan Thomas – EGLE | 269-615-4451 | ThomasD38@michigan.gov

PROJECT DESCRIPTION:

When 800,000 gallons of crude oil were released from a ruptured Enbridge Energy, Limited Partnership (Enbridge) pipeline in Marshall, leading to the largest inland crude oil release that had ever occurred in the United States, impacts were seen within residential properties, floodplains, wetlands, 2 miles of Talmadge Creek, and 40 miles of the Kalamazoo River. Severe flooding further exacerbated the spill conditions, allowing the oil to migrate into backwater floodplains and nearby wetlands. Initial response and cleanup activities were led by multiple government agencies, including the EGLE Remediation and Redevelopment Division (RRD).

Weston conducted oversight of Enbridge's remedial investigation (RI) of the overbank areas (i.e., floodplains and wetland). We provided evaluation of technical reports, analytical data, and remedial activities. Remedial activities performed by our team included removal of oil-impacted floodplain soil and in-stream sediments and subsequent restoration of the affected areas.



Weston supported the State in the restoration of streams and wetlands impacted as a result of the Enbridge crude oil spill.

Weston also provided oversight and technical reviews of the restoration activities for both wetlands restoration and in-stream restoration. Our support included review of work plans, negotiations with Enbridge and their



contractors, and oversight of the field restoration activities to ensure that the appropriate restoration techniques (i.e., planting of native plants, installing proper soil types, and bank stabilization methods) were used.

Affected wetlands and in-stream areas were restored to pre-remediation conditions and approved by the representative state and federal agencies. The ultimate objective for the State of Michigan was to ensure that cleanup activities resulted in restoration of the entire spill area and to protect human health and the environment in accordance with all applicable state regulations. Weston provided technical assistance to ensure that the cleanup adhered to applicable state laws and the consent judgement. We assisted EGLE in initiating closure of portions of the site, with the confidence that Enbridge properly completed the RAs and restoration of the environment to pre-spill conditions.

"Thank you all for all of your help over the past 5-years of hard work culminating in the development of the forensic process, memorialized in the technical memorandum, that allowed the project to move forward in a defensible approach to resolve the outstanding overbank issues. Your dedication and focus is most appreciated." — EGLE, April 2021.



APPENDIX B-4: ENVIRONMENTAL INVESTIGATION / CHARACTERIZATION / PILOT TESTS / FEASIBILITY STUDY

Project 1 Reference Information

PROJECT NAME:

Former U.S. Aviex Site: RI/FS (Section 3, Table 2, Project No. 8)

PROJECT ADDRESS:

1056 Huntly Road

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Bakkila | L. Kammer | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Niles, Michigan 49120

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Priyank Patel – EGLE | 517-285-3724 | PatelP1@michigan.gov

PROJECT DESCRIPTION:

This National Priorities List (NPL) site is the location of a former non-lubricating automotive fluids manufacturing facility. Weston has supported the State of Michigan on this important project for over 19 years, implementing several innovative RI tools to characterize and determine the extent of contamination, such as multiple vertical aquifer profiling techniques, and has optimized the groundwater monitoring component of the project.

We have conducted RI/feasibility study (FS), pilot testing, groundwater modeling, design, bidding, construction management, system maintenance and monitoring, and on-site source area soil remediation and off-site water main extension/service installation. We have also provided community relations support, monitored natural attenuation (MNA) sampling, VI investigations, monitoring well abandonment, decommissioning/demolition of on-site structures, 1,4-dioxane investigation and sampling, and per- and poly-fluorinated alkyl substances (PFAS) sampling.

Weston also designed and implemented an expanded groundwater investigation specifically for 1,4-dioxane. As part of the environmental investigation, we installed four soil borings to depths of greater than 150 feet using rotosonic drilling techniques to determine the site stratigraphy and to collect groundwater samples using vertical aquifer sampling (VAS).

Continuous sonic soil cores were collected from ground surface to the top of shale bedrock to characterize the hydrostratigraphy and to guide the VAS intervals. A sodium bromide solution was used throughout the VAS effort as a tracer method to verify the effectiveness of VAS purging. Soil borings were abandoned in accordance with standard operating procedures (SOPs).

Weston used the results of the soil boring installations and VAS to design Phase II of the investigation, which included the installation of eight permanent monitoring wells using hollow-stem auger (HSA).

The successful source area remediation allowed the State of Michigan to cease operation of the remedy.



Project 2 Reference Information

PROJECT NAME:

Coe's Cleaner Site: Environmental Investigation and Pilot Test (Section 3, Table 2, Project No. 3)

PROJECT ADDRESS:

110 W. Liberty Street

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Bakkila | M. Abbott | B. Fletcher | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Milford, Michigan 48381

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Brandon Alger – EGLE | 586-623-2839 | AlgerB@michigan.gov

PROJECT DESCRIPTION:

The Coe's Cleaner Site in Oakland County is a former dry cleaner facility that released chlorinated solvents and created a large plume of contamination that migrated to municipal wells. A groundwater pump-and-treat system to intercept the groundwater plume and prevent additional municipal well contamination exists at the site, and treated groundwater is discharged to the adjacent millpond via an NPDES permit.

We have completed multiple environmental site investigations to delineate the soil and groundwater contamination and to identify the source area.

Additionally, Weston completed an in-depth historical review of the former dry cleaner location to confirm the precise location of the facility. Our site investigations confirmed the presence of chlorinated solvents in both soil and groundwater beneath the site, exceeding risk-based criteria.



As a result of our VI investigation, Weston conducted a feasibility analysis to evaluate remedial options, utltimately selecting SVE as the best option. We subsequently designed and completed an SVE pilot test, determining that this method would be effective in removing cholorinated solvents at the site.

In 2019, Weston was tasked with completing a VI investigation of the buildings surrounding the former dry cleaner location. The VI investigation revealed that several of the adjacent buildings had soil-gas concentrations in excess of screening levels that presented a potential health risk.

As a result of the VI investigation, Weston completed a feasibility analysis to evaluate remedial options to address the VI risk from beneath the buildings. SVE was selected as the best remedial option based on site conditions.

Subsequently, Weston designed and completed an SVE pilot test in June 2022. The results of the pilot test indicated that SVE would be effective in removing the contaminants from beneath the buildings, thereby reducing exposure risks.

Weston then prepared a pilot study summary report and a detailed cost estimate for the installation of an SVE system for EGLE.



Project 3 Reference Information

PROJECT NAME:

Velsicol Chemical Company Superfund Site: RI/FS (Section 3, Table 2, Project No. 20)

PROJECT ADDRESS:

500 Bankson Street

KEY PERSONNEL:

C. Douglas | J. Ruiz | T. Bosko | J. Myers | T. Lyon | O. McMillen

PROJECT CITY / STATE / ZIP:

St. Louis, Michigan 48880

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Erik Martinson - EGLE | 517-285-3978 | MartinsonE@michigan.gov

PROJECT DESCRIPTION:

The Velsicol Chemical Company Superfund Site, located along the Pine River in St. Louis, MI, produced a variety of chemicals that resulted in the contamination of soil and groundwater at and near the site. These contaminants include NAPL, benzene, chlorobenzene, vinyl chloride, DDT, DBCP, and numerous other contaminants. In addition to the plant site, Velsicol operated a burn pit located on the north side of the Pine River, where liquid waste from the plant was burned and solid waste from St. Louis was buried.

Weston conducted a Phased RI, including installation of additional deep monitoring wells on-site and within the surrounding area to monitor para-chlorobenzene sulfonic acid concentrations. St. Louis municipal wells were documented to be impacted with para-chlorobenzene sulfonic acid, and the additional wells were installed to monitor these concentrations. Activities also included delineation of soil and groundwater contamination in the former burn pit, delineation of surface soil contamination in the adjacent residential area, and collection of soil and groundwater samples around the site perimeter. Shortly thereafter, Weston performed the FS, evaluating numerous remedial technologies, detailing selected cleanup remedies, and estimating remedial costs. The FS process involved a significant level of coordination between EGLE, EPA, and other stakeholders.



During the most recent RI work, Weston performed extensive soil sampling to delinate and characterize contamination at the site.

Most recently, Weston continues to provide technical assistance to EGLE, including the following:

- Completion of additional investigation of OU-2 (downstream sediment and biota sampling);
- Review of EPA sampling plans for investigation of the adjacent or nearby properties, OU-2, and the former plant site (FPS);
- Attendance and participation in meetings with EPA, the City, and Technical Action Group/ Community Action Group;
- Oversight of RI activities at the FPS, including drilling, soil sampling, and geophysical investigation;
- Oversight of remediation in adjacent or nearby properties (soil excavation) and the FPS (in situ thermal treatment systems, excavations, and in situ treatment via chemical injections); and
- Oversight of EPA's supplemental investigation of OU-2, including sediment sampling, mapping, and floodplain soil sampling.

Other support activities have included review of technical reports and other documents produced by EPA for the adjacent burn pit, including work plans, sampling plans, risk assessments, and an RI report.



APPENDIX B-5: ENVIRONMENTAL / ROTO SONIC DRILLING / WELL ABANDONMENT

Project 1 Reference Information

PROJECT NAME:

Chapel Landfill Site: Application of Rotosonic Drilling Techniques (Section 3, Table 2, Project No. 1)

PROJECT ADDRESS:

9885 Cedar Island Road

KEY PERSONNEL:

C. Douglas | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

White Lake, Michigan 48386

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Courtney Kohloff - EGLE | 517-614-4914 | KohloffC@michigan.gov

PROJECT DESCRIPTION:

The Chapel Landfill Site is the location of a former licensed landfill that operated in the 1950s and 60s and was closed in 1969. Nearby residential wells were found to be impacted with chlorinated solvents. In response, the State installed deep replacement wells and identified the need for former landfill investigation.

Weston conducted a site investigation (including the installation of soil borings, groundwater monitoring wells, and soil-gas wells) to determine whether soil/groundwater contamination and/or soil-gas contamination was present above applicable Part 201 criteria. Several deep soil borings were completed using rotosonic drilling



When elevated levels of methane were detected at the Chapel Landfill Site, Weston performed soil-gas sampling and provided oversight of methane vent installation.

techniques to determine the site stratigraphy and to locate the clay confining layer beneath the site. Additionally, directpush technology (DPT) was used to complete shallow soil and groundwater sampling.

An HSA rig was used to install the groundwater and soil-gas monitoring wells. Methane was detected at elevated levels on the former landfill, and Weston installed multiple methane



vents via HSA to address the methane.

Weston successfully obtained preliminary site characterization data through the site investigation activities, which were completed under budget and within an accelerated schedule.

Further assessment of the site and the surrounding area to determine the source of contamination detected in the residential wells is ongoing.



Project 2 Reference Information

PROJECT NAME:

Former U.S. Aviex Site: Application of Rotosonic Drilling Techniques (Section 3, Table 2, Project No. 8)

PROJECT ADDRESS:

1056 Huntly Road

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Bakkila | L. Kammer | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Niles, Michigan 49120

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Priyank Patel – EGLE | 517-285-3724 | PatelP1@michigan.gov

PROJECT DESCRIPTION:

Weston supported the State of Michigan on this complex project for over 19 years, implementing several innovative RI tools to characterize and determine the extent of contamination, such as multiple vertical aquifer profiling techniques, well installation, well abandonment, and optimized the groundwater monitoring component of the project.

Relevant activities performed within the last 5 years by Weston in support of remediation at this site include design and implementation of an expanded groundwater investigation, specifically for 1,4-dioxane.

We installed four soil borings to depths of greater than 150 feet using rotosonic drilling techniques to determine the site stratigraphy and collect groundwater samples using VAS.

Continuous sonic soil cores were collected from the ground surface to the top of shale bedrock to characterize the hydrostratigraphy and guide the VAS intervals. A

sodium bromide solution was used throughout the VAS effort as a tracer method, enabling field verification of VAS purging effectiveness.

Soil borings were abandoned in accordance with SOPs.

Weston used the results of the soil boring installations and VAS to design Phase II of the investigation, which included the installation of eight permanent monitoring wells using HSA.

Completion date: Ongoing.



Weston used rotosonic drilling techniques to determine stratigraphy and guide the VAS intervals at the Former U.S. Aviex Site.



Project 3 Reference Information

PROJECT NAME:

Quinn Road Grosse Pointe Dump Site: HSA Drilling Methods (Section 3, Table 2, Project No. 13)

PROJECT ADDRESS:

22013 Quinn Road

KEY PERSONNEL:

J. Ruiz | K. Frey | J. Myers | S. LeTarte | T. Lyon | O. McMillen

PROJECT CITY / STATE / ZIP:

Clinton Township, Michigan 48035

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Courtney Kohloff – EGLE | 517-614-4914 | KohloffC@michigan.gov

PROJECT DESCRIPTION:

Weston conducted a site investigation at a former quarry that was reportedly used as a dump site and now operates as a public park located immediately next to an elementary school in a residential neighborhood.

The initial investigation focused on identifying the presence of waste, soil contamination associated with the waste, and the potential for methane generation from waste degradation. Following initial mobilization, Weston used DPT to advance shallow soil borings and log soil cores to determine the presence or absence of waste.

Once waste was identified and soil and soil-gas samples were collected, our focus shifted to risk mitigation due to extremely elevated levels of methane from the waste. Weston assisted EGLE in assessing risk by installing vapor wells using HSA drilling methods to install the well screens within the waste materials while remaining above the water table and by selecting and procuring indoor methane alarm systems for residents and the school. The vapor wells were installed to monitor methane on the edges of the waste.

After installing vapor monitoring wells and monitoring methane concentrations within these wells, we identified the areas with the highest methane concentrations. Weston then installed methane gas venting wells in these areas to release the methane into the atmosphere and limit potential migration towards the school or the residential neighborhood. Methane gas vents were installed using HSA drilling to set the well screen within the waste and extend the vents to 8 feet above ground to prevent human exposure and limit tampering.

We are continuing to monitor the vapor wells to establish seasonal fluctuations in concentrations and to ensure the gas vents continue to effectively reduce off-site migration risks.



APPENDIX B-6: GROUND PENETRATING RADAR (GPR) / LASER-INDUCED FLUORESCENCE (LIF) FIELD SCREENING

Project 1 Reference Information

PROJECT NAME:

Village of Douglas Site: MIP Sampling (Section 3, Table 2, Project No. 21)

PROJECT ADDRESS:

200 Blue Star Highway

KEY PERSONNEL:

C. Douglas | M. Bakkila | J. Myers | V. Dello Russo

PROJECT CITY / STATE / ZIP:

Douglas, Michigan 49406

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Ray Spaulding – EGLE | 269-567-3532 | SpauldingR1@michigan.gov

PROJECT DESCRIPTION:

The Village of Douglas Site contains a chlorinated solvent release area at a former manufacturing facility that consists of both vadose zone soil and groundwater impacts, and a large groundwater CVOC plume that discharges to Wicks Creek and Kalamazoo Lake.

Plant operations ceased in 2014, allowing for more complete access inside the facility to evaluate sub-slab soilgas concentrations and to further assess the source area beneath the building.

Weston conducted additional site characterization activities, including soil-gas well sampling, sub-slab Vapor Pin[®] sampling, indoor air sampling, membrane interface probe (MIP) sampling, and groundwater sampling for MNA parameters.

MIP was selected to optimize sample locations and reduce the need for additional mobilizations. Sub-slab and soil-gas well vapor sampling results, as well as historical maps of potential source areas, were used to select initial MIP locations. The MIP was also equipped with additional sensors (hydraulic profiling tool [HPT], electrical conductivity probe, and a CVOC-specific detector) to provide additional vertical characterization data.

Results were used to create 3D views of subsurface lithology and CVOC impact. A total of 31 borings were completed—16 within the building and 15 outside of the building. The MIP combined tools provided real-time data correlating residual CVOC impact to intervals of silty sand and clay present beneath the building footprint. The field interpretation of the real-time data allowed the investigation to delineate the source area.

During the MIP investigation, soil samples were collected for laboratory analysis of VOCs and for grain size analysis to further correlate with the field measurements. The correlation between field and laboratory results confirmed the reliability of the field results.

Results of the MIP investigation were used to develop a list of potential remedial options for source area treatment.

Completion date: January 2020.



Project 2 Reference Information

PROJECT NAME:

Coe's Cleaner Site: LIF Field Screening to Support Site Investigation (Section 3, Table 2, Project No. 3)

PROJECT ADDRESS:

110 W. Liberty Street

KEY PERSONNEL:

J. Ruiz | C. Douglas | M. Bakkila | M. Abbott | B. Fletcher | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Milford, Michigan 48380-48381

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Brandon Alger – EGLE RRD | 586-623-2839 | AlgerB@michigan.gov

PROJECT DESCRIPTION:

Weston conducted an LNAPL investigation at the Coe's Cleaner Site, an area-wide site of CVOC groundwater contamination resulting from past releases of dry-cleaning solvents.

Groundwater monitoring detected petroleum-related LNAPL in one of the monitoring wells near the treatment system. Numerous LUST sites are located in the Village of Milford and were suspected to be the source of the LNAPL. Weston completed a laser-induced fluorescence (LIF) investigation to delineate the LNAPL and determine the source area. Nine LIF borings were completed in the LNAPL area. Confirmation soil and groundwater samples were collected from five borings after on-site, real-time review and analysis of the LIF data.

Use of the LIF technology allowed Weston to quickly and accurately assess the site conditions, determine where to advance additional LIF borings, and determine where to collect confirmation samples in a single mobilization.

The results of the environmental assessment concluded that there was not a large LNAPL plume in the area and that the LNAPL was not connected to a source area. Impacted soil and groundwater were identified, but

generally below Part 201 criteria, and exceedances of soil saturation or solubility values were not identified for the detected compounds.

Therefore, Weston's LIF investigation was successful in accomplishing the intended objective and ultimately reduced overall project costs by limiting the number of soil borings and resulting soil and groundwater samples needed for laboratory analysis.

Completion date: Ongoing.



Coe's Cleaner Site.



Project 3 Reference Information

PROJECT NAME:

Warren Avenue LUST Site: LIF Field Screening to Support RI (Section 3, Table 2, Project No. 22)

PROJECT ADDRESS:

20010 Warren Avenue

KEY PERSONNEL:

V. Dello Russo | C. Douglas | J. Myers | T. Lyon

PROJECT CITY / STATE / ZIP:

Detroit, Michigan 48228

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Beth Vens – EGLE | 586-753-3825 | VensB@michigan.gov

PROJECT DESCRIPTION:

Weston completed an RI to characterize environmental conditions, migration pathways, contaminant sources, and resulting risks associated with this LUST site in Detroit.

Investigative techniques included Ultra-Violet Optical Screening Tool (UVOST[®]) LIF; DPT; HSA drilling; oil-water interface probe screening; photoionization detector screening; surveying; historical records reviews, including aerial photographs and Sanborn Maps; hand augering; stratigraphic soil borings; monitoring well installations; field screening; and laboratory analyses of soil and water samples.

Because the site is comprised of active and former gasoline stations at all four corners of this busy intersection, the RI included all four properties. Minimal environmental characterizations had been completed at the properties.

Due to the presence of NAPL in one existing monitoring well, and the lack of adequate site characterizations, Weston used LIF (UVOST[®]) early in the RI to efficiently ascertain whether NAPL conditions were probable across the study area (four properties). The LIF results indicated that NAPL was present only at isolated locales and depths, and confirmation soil borings supported those findings. Those results, coupled with the subsequent monitoring well findings, enabled EGLE to focus on more discrete locations across the study area, targeting preferential pathways and VI conditions.

Weston has prepared a comprehensive technical memorandum summarizing the investigative activities and analytical results.

Completion date: September 2019.



APPENDIX B-7: PER-& POLYFLUOROALKYL SUBSTANCES (PFAS) SAMPLING / MITIGATION / REMEDIATION

Project 1 Reference Information

PROJECT NAME:

Charlestown Naval Auxiliary Landing Field (CNALF) RI: PFAS Sampling (Section 3, Table 2, Project No. 2)

PROJECT ADDRESS:

5 Park Lane

KEY PERSONNEL:

C. Schripsema | K. Mooney | L. Kammer | V. Dello Russo | C. Sollenberger | T. Bosko | S. Shankar | J. Emmendorfer | S. LeTarte | O. McMillen

PROJECT CITY / STATE / ZIP:

Charlestown, Rhode Island 02813

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Todd Beckwith – USACE Baltimore | 410-962-6784 | todd.t.beckwith@usace.army.mil

PROJECT DESCRIPTION:

The former CNALF was used as a training facility during World War II and later as a support facility to Quonset Point Naval Base. It was transferred to the U.S. Fish and Wildlife Service and the Town of Charlestown in 1982. Set upon 630 acres of species-rich, ecologically diverse habitat, CNALF overlaps with a National Wildlife Refuge and park and includes recreational use areas, sanctuary for migrating birds, and the largest coastal salt pond in Rhode Island. The site contains PFAS-impacted water supply and residential wells, three landfills, former boiler house sites, a transformer pit, and a former fire training/burn pit area.

Under our A-E Services Indefinite Delivery Indefinite Quantity (IDIQ) contract with the U.S. Army Corps of Engineers (USACE), Weston was tasked to perform broad-spectrum environmental studies and investigations, with work encompassing RI, FS, proposed plan (PP), and decision documents (DDs); regulatory coordination; and associated incidental construction. Stakeholders included Rhode Island Department of Environmental Management, U.S. Fish and Wildlife Service, and the Town of Charlestown.

In accordance with CERCLA and RCRA, we are currently performing PFAS investigation and comprehensive discrete media sampling, with careful consideration f or compliance with USACE DQOs and regulatory

criteria. We prepared work plans, including sampling plans for incremental and discrete sampling. Our Quality Assurance Project Plan (QAPP) incorporates installation of monitoring wells; as well as sampling of soil, groundwater, freshwater and tidal sediment, surface water, and porewater in wetland and shoreline areas that will allow for statistical comparison to determine the nature and extent of site contamination and assess ecological and human health risks.

Landfill investigations include geophysical surveys and test pits evaluate potential groundwater contamination sources. Background concentrations will be crucial to the distinguishing site-specific related impacts from facilitywide impacts potentially related to historic DoD activities.

Weston collaborated with the USACE Center of Excellence to ensure that our sampling design allows for robust statistical evaluation appropriate for a discrete approach. A draft ISM approach was developed in accordance with DoD



Weston provided oversight of our drilling subcontractor during subsurface sampling. The photo above depicts the extrusion of a sample from rotosonic drill rig core barrel at a water supply well area located on the CNALF site.



and Interstate Technology & Regulatory Council (ITRC) guidelines; however, this was ultimately not implemented due to USACE's preference for discrete sampling.

We used ground penetrating radar (GPR) technology to assess subsurface infrastructure and clear areas for subsurface investigations. CNALF is known to have significant invasive vegetative communities, and there was concern of additional introduction and propagation as a result of site investigation activities. Weston completed drone surveys, plots, and transects to document existing habitats including wetlands prior to



During sampling activities, we provided direction and oversight of our qualified drilling subcontractor, shown here advancing a borehole for a monitoring well on site using rotosonic rig.

clearing vegetation for access.

Our field team performed sampling of site media and nearby residential drinking water and Town public water supply wells for PFAS and a comprehensive list of organic, inorganic, and explosives compounds to determine which locations required treatment systems. Results from analysis surface and subsurface soil sampling and monitoring well groundwater sampling was used to document source area location and the need for follow-on mitigation. Based on sample results, we are currently refining the CSMs for each area of CNALF, which includes three-dimensional (3D) digital modeling. A FS may be completed to support a PP and DD to mitigate identified potential risks.

Completion date: Ongoing.

Project 2 Reference Information

PROJECT NAME:

Former U.S. Aviex Site: PFAS Sampling (Section 3, Table 2, Project No. 8)

PROJECT ADDRESS:

1056 Huntly Road

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Bakkila | L. Kammer | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Niles, Michigan 49120

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Priyank Patel – EGLE | 517-285-3724 | PatelP1@michigan.gov

PROJECT DESCRIPTION:

The Former U.S. Aviex Site, an NPL site, is the location of a former non-lubricating automotive fluids manufacturing facility. Weston has conducted RI/FS, pilot testing, groundwater modeling, design, bidding, construction management, system maintenance and monitoring, and on-site source area soil remediation and off-site water main extension/service installation at the site. Weston has also performed community relations support, MNA sampling, VI investigations, monitoring well abandonment, decommissioning/demolition of onsite structures, 1,4-dioxane investigation and sampling, and PFAS sampling in support of the State at the site.

Weston provided support to EGLE for the groundwater sampling for PFAS. We prepared and submitted EGLE-specific SOPs for groundwater sampling of monitoring wells associated with the site. We also submitted a summary of relevant Weston PFAS sampling qualifications. The SOP was approved by EGLE, and Weston field staff sampled 13 monitoring wells across the site for PFAS in accordance with the SOP. The groundwater samples were submitted for analyses to the state-approved laboratory, with analytical results indicating non-detections for PFAS.

Completion date: Ongoing.

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Project 3 Reference Information

PROJECT NAME:

Wright-Patterson Air Force Base (AFB): PFAS Investigation and Remediation (Section 3, Table 2, Project No. 23)

PROJECT ADDRESS:

4185 Logistics Avenue

KEY PERSONNEL:

C. Sollenberger | M. Abbott | E. Coggin | L. Kammer | T. Bosko | T. Oberman

PROJECT CITY / STATE / ZIP:

Dayton, Ohio 45433

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Laura Deck – USACE Omaha District | 402-995-2073 | Laura.J.Deck@usace.army.mil

PROJECT DESCRIPTION:

As part of the CERCLA removal actions, Weston is delivering innovative passive treatment approaches to PFAS contamination on-site, which is impacting local drinking water aquifers. Historical fire training and storage facilities released PFAS-containing aqueous film-forming foam (AFFF), resulting in contamination of multiple media across the 13-acre Area 1 and 7-acre Area 21. Point-source pollutants in surface and subsurface soils, groundwater, surface water, and sediment contributed to on- and off-base groundwater plumes in a complex aquifer system, which supplies drinking water to the base and City of Dayton, posing a substantial and imminent public health threat. In accordance with CERCLA, Weston performed a time-sensitive assessment, including data gap investigation, streamlined engineering evaluation/cost analysis (EE/CA), and a groundwater treatment pilot study to support RAs.

Weston's investigation objectives were to: (1) identify and address data gaps from three previous assessments and site inspections; (2) investigate/characterize the extent of PFAS contamination in soil, groundwater, and surface water; and (3) develop and recommend a fast-track, design-build PFAS removal and treatment solution.

As part of the data gap investigation, we implemented DPT and rotosonic borings at 80 locations and performed groundwater sampling; surface water sampling; soil sampling (more than 300 combined samples); groundwater modeling; extraction well installation (more than 20 locations); and pumping tests (performed simultaneously on two sites located on the base with four drill rigs and crews). Our analysis of soil and groundwater samples indicated considerable exceedances. Significant perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) concentrations were encountered in groundwater and in the surface water drainage system, which continued downstream and exited the base, potentially impacting nearby municipal water supply wells and recreation resources.

Work involved site investigation, RD, construction, and commissioning, including design and construction of a novel 250-gallon-per-minute (gpm) groundwater extraction and treatment gravity flow basin system to filter solids and remove PFAS compounds, as well as total petroleum hydrocarbons, using biologically active granular media filtration (reed beds), granular activated carbon (GAC), and organoclay sorption media with the treated effluent discharged via a new NPDES permitted outfall. The project also includes construction of a series of innovative gravity flow passive basins for treatment and removal of PFAS from surface water and groundwater in a 500-gpm system at a separate location on the base.

Weston conducted an on-site pilot study to assess pretreatment and treatment requirements and to develop design parameters, including fouling reduction measures (necessary to maintain operations of the treatment system and extend the life of the sorption media used to remove PFAS). The 6-month pilot study with field testing of various sorption media was completed concurrently with the EE/CA. Two pretreatment and three primary treatment media were evaluated, resulting in the selection of reed beds for pretreatment and organoclay for primary PFAS treatment based on its high absorption capacity and low fouling characteristics.

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EE/CA reports were prepared to assess the effectiveness and viability of various groundwater extraction and treatment system technologies. Four removal action alternatives to address PFAS-impacted groundwater and surface water were considered, including potential impacts to downgradient, off-base drinking water sources.

Weston's recommended alternative, submitted to USACE, the U.S. Air Force (USAF), and regulatory agencies within 12 months of award by working closely with stakeholders, is in the CERCLA final approval process. It involves passive (gravity flow) filtration basins, surface water capture, groundwater extraction, and on-site discharge of treated water to an existing NPDES outfall. This passive filtration system with use of organoclay media is innovative because of its cost-effective scalability, relatively short construction period, protection from biofouling typically associated with surface water treatment, and long-term effectiveness.

With proper operation and maintenance (O&M), this system can permanently remove PFOS/PFOA from the captured surface water and extracted groundwater and transfer the PFOS/PFOA to the organoclay for either destruction or disposal. This unique solution will be implemented faster and at lower cost than a traditional groundwater treatment system, enabling the facility to be in operation quickly and stop the migration of PFAS to nearby drinking water wells.



APPENDIX B-8: PHASE I / PHASE II / BASELINE **ENVIRONMENTAL ASSESSMENTS**

Project 1 Reference Information

PROJECT NAME:

Superior Lubricants Phase I & II Environmental Site Assessment (ESA) and Baseline Environmental Assessment (BEA) Support (Section 3, Table 2, Project No. 15)

PROJECT ADDRESS:

415 Squires Drive

KEY PERSONNEL:

J. Ruiz | K. Mooney | K. Frey | J. Myers | V. DelloRusso | T. Lyon

PROJECT CITY / STATE / ZIP:

Milan, Michigan 48160

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Steve Peters – Superior Lubricants | 734-777-5750 | SPeters@innovativefluids.com

PROJECT DESCRIPTION

Weston conducted a Phase I Environmental Site Assessment (ESA) in accordance with the ASTM Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process E1527-13 and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries (AAI) to support a pending real estate transaction for the 415 Squires Drive property. The Phase I ESA documented that the property was "a facility" and identified on-site recognized environment conditions (RECs), historical RECs (HRECS), and controlled RECs (CRECs).

Weston completed a limited Phase II ESA to characterize current conditions of the property and to support the preparation of a Baseline Environmental Assessment (BEA) and a Due Care Plan for the property. The limited Phase II ESA included the installation of soil boring and temporary monitoring wells, as well as the collection of soil and groundwater samples. The existing property owner had obtained a Covenant Not to Sue from the State of Michigan prior to acquiring the property, and we provided extensive negotiation support, guidance, and coordination with the State of Michigan to help transfer the Covenant Not to Sue to the new buyer.

Completion date: July 2019.

Project 2 Reference Information

PROJECT NAME:

UMB Bank Property: Phase I ESA & Phase II Investigation (Section 3, Table 2, Project No. 17)

PROJECT ADDRESS:

426 North Kirkwood Road, Kirkwood, MO

KEY PERSONNEL:

K. Frey | J. Ruiz | M. Abbott | J. Myers | T. Bosko | S. LeTarte | O. McMillen | T. Oberman

PROJECT CITY / STATE / ZIP:

Kirkwood, Missouri 63122

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Neal Holdridge – Confidential Client | 949-689-3365 | NHoldridge@trammellcrow.com

PROJECT DESCRIPTION:

The UMB Bank Property site, being considered for redevelopment as for mixed use (e.g., commercial and multifamily residential uses), was previously used for various commercial and industrial uses, including a former dry cleaner, auto service station, and bank. A Phase I ESA and limited Phase II investigations were initially performed in 2019 by others for a previous potential buyer. When our client sought to purchase this property,



they hired Weston to perform a new Phase I and more comprehensive Phase II ESA to support their property acquisition and redevelopment.

We conducted a Phase I ESA in accordance with the ASTM Phase I Environmental Site Assessment Process E1527-13 and 40 CFR Part 312, AAI). Our team identified on-site recognized conditions (RECs) and historical RECs (HRECs) related to former on-site operations (dry cleaner and auto station) and surrounding property uses (auto filling station). No controlled RECs (CRECs) nor environmental liens were identified for the property.

Weston then completed a Phase II ESA, based on our identified Phase I ESA RECs and the prior limited Phase II investigation to further characterize current conditions of the property. Our investigation targeted the area of former dry cleaner and auto service stations on and adjacent to the site. Weston's Phase II ESA included advancement of soil borings and installation of monitoring wells, as well as collection of soil and groundwater samples. We collected samples from soil and groundwater for benzene, toluene, ethylbenzene, and xylene (BTEX); CVOCs, polycyclic aromatic hydrocarbons (PAHs), metals and/or total petroleum hydrocarbons (TPHs). Following the completion of the Phase II ESA, all monitoring wells were abandoned in accordance with state regulations.

Weston's work was performed in accordance with the agreed upon SOW. Phase I and Phase II reports were submitted to the client for use in property transaction and future development.

Completion date: February 2022.

Project 3 Reference Information

PROJECT NAME:

Confidential Manufacturing Facility: Phase I Environmental Site Assessment and Supplemental Letter Report (Section 3, Table 2, Project No. 4)

PROJECT ADDRESS:

1975 Old Virginia Road, Danville, Virginia 24540

KEY PERSONNEL:

K. Frey | J. Ruiz | M. Castillo | J. Myers

PROJECT CITY / STATE / ZIP:

Danville, Virginia

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Robert Girton – Confidential Client | 330-888-8510 | rgirton@edgewatercapital.com

PROJECT DESCRIPTION:

This site is a 26-acre specialty chemical manufacturing facility, which was historically used for an extended period of time. Weston was hired to conduct a Phase I ESA, environmental regulatory compliance review, and Voluntary Remediation Program document review on the property prior to the acquisition by the current owner of the facility.

Weston conducted a Phase I ESA and identified several RECs associated with operations at the site. Following acquisition of the property, a Phase II investigation was performed by others based on the RECs initially identified. Primary contaminates of concern were VOCs in soil, groundwater, and soil vapor. In 2021, we conducted an updated Phase I ESA at the site in accordance with the ASTM Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process E1527-13 and 40 CFR Part 312, Standards and Practices for AAI. The 2021 Phase I ESA identified the presence of RECs, HRECs, and CRECs on site.

Following the completion of the 2021 Phase I ESA, additional information was provided regarding the identified RECs to offer additional context to the likelihood of the conditions continuing to occur and to provide perspective on the overall severity and associated risk for each of the RECs.

Phase I ESA and supplemental letter report was completed and submitted to the Client. No further action at the Site was required. <u>Completion date</u>: November 2021.



APPENDIX B-9: REMEDIATION SYSTEMS DESIGN / CONSTRUCTION OVERSIGHT / O&M / DECOMMISSIONING

Project 1 Reference Information

PROJECT NAME:

Residential Wells-Holly Road Site: Remediation Systems Design, Construction Oversight, and O&M (Section 3, Table 2, Project No. 14)

PROJECT ADDRESS:

Various Addresses in Brighton

KEY PERSONNEL:

J. Ruiz | C. Douglas | M. Bakkila | K. Mooney | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Brighton, Michigan 48116

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Rebecca Taylor – EGLE RRD | 517-284-5160 | TaylorR@michigan.gov

PROJECT DESCRIPTION:

The Residential Wells-Holly Road Site is approximately 0.4 square mile in size, encompassing Refrigeration Research, Inc. (RRI) within an industrial park to the north, a residential area, and a school zone. A dissolved phase CVOC plume, consisting primarily of trichloroethylene (TCE), migrated south from the RRI property, passing beneath Lindbom Elementary School (now closed), numerous residences, and Brighton High School (BHS) prior to venting to Leith Lake approximately 3,000 feet downgradient of the release area. Beginning in 2002, Weston provided professional services to EGLE to complete the plume delineation; assess impacts to indoor air, groundwater, and surface water; and control risks to human health and the environment.

To mitigate the venting groundwater to Leith Lake and to cut off the plume prior to it passing beneath BHS, Weston designed a pump-and-treat groundwater recovery system. Aquifer properties were determined by conducting a pump-test pilot study and single-well permeability tests, and by performing groundwater modeling using numerical and analytical solutions. Weston also assessed groundwater characteristics, including inorganic constituents and water quality parameters such as metals, chloride, and organic carbon content as they may pertain to treatment efficacy. Various well configurations were modeled to determine the effective balance between groundwater recovery requirements to inhibit further plume migration and to minimize the amount of infrastructure required in the front lawn and high traffic area north of BHS. Weston prepared biddable specifications in MICHSPECTM format for a pump-and-treat system that uses two 1,000-pound GAC filtration vessels and then discharges the treated water to the storm sewer in compliance with an NPDES permit. All aboveground system components were housed in a prefabricated building that was assembled off-site to minimize the construction duration at the school. The design included vinyl-coated fencing and landscaping to minimize aesthetic concerns. Design drawings and specifications were submitted to and approved by the Michigan Department of Labor and Economic Growth for compliance with the Michigan Department of Education School Site Planning Criteria.

Weston supported the State of Michigan through evaluation of TC bids and award recommendation and provided construction oversight of the TC. The system was successfully constructed outside of school operations, minimizing impact to the school and ensuring student safety.

Weston continues to provide O&M oversight and NPDES reporting support to EGLE. Follow-up groundwater sampling has demonstrated that the remediation system is successfully capturing contaminated groundwater and cutting off the plume prior to venting to Leith Lake, based on downgradient monitoring well chemistry findings and capture zone analyses. The pump-and-treat system has been very reliable and effective throughout its operational history (more than 10 years), with essentially continuous operation during that time and little to no maintenance issues.

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Weston also assisted EGLE with the assessment of residual source area soil and soil-gas concentrations, and the evaluation of a previously operated SVE system at RRI, with an ISM field project followed by SVE pilot testing. Weston augmented the SVE system with improved blower and manifold components, prepared biddable specifications in MICHSPECTM format, evaluated TC bids, supervised the SVE system augmentation work, and has managed O&M and reporting since the system began operation in 2015.

Completion date: Ongoing.

Project 2 Reference Information

PROJECT NAME:

Coe's Cleaner Site: Remediation Systems O&M (Section 3, Table 2, Project No. 3)

PROJECT ADDRESS:

110 W. Liberty Street

KEY PERSONNEL:

J. Ruiz | C. Douglas | M. Bakkila | M. Abbott | B. Fletcher | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Milford, Michigan 48380-48381

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Brandon Alger – EGLE RRD | 586-623-2839 | AlgerB@michigan.gov

PROJECT DESCRIPTION:

In the past, Weston has conducted site characterization and remediation system O&M oversight in support of EGLE at this groundwater contamination site. Both chlorinated and petroleum VOCs from historical releases of a former dry cleaner and multiple LUST sites have impacted groundwater that is migrating toward the Milford municipal well system.

A groundwater extraction and treatment system was installed by others to intercept the groundwater plume. The system consists of three extraction wells, which pump water at up to 300 gpm through bag filters for solids removal and an air stripper for VOC removal. After numerous years of operation, Weston has been responsible for operating it, monitoring performance, and making enhancements. We

developed and implemented a plan to upgrade the system. Goals of the upgrade included meeting the updated discharge criteria, reducing maintenance effort/cost, improving system operational flexibility, improving remote monitoring and pumping controls, and improving treatment flow capacity and efficiency.

Weston recommended replacing various components of the system, including a new Carbonair[®] STAT 400 air stripper unit, new blower, and variable frequency drive units; cleaning the well screens and drop piping; and replacing conveyance piping inside the treatment building, including the discharge line where large amounts of scale restricted the discharge of treated groundwater. Weston designed the system upgrades and coordinated with and provided oversight of the TC during completion of the upgrades.

The remedial system has been plagued with scale problems (due to high iron and calcium





Weston designed and facilited implementation of upgrades to the groundwater extraction and treatment system at the Coe's Cleaner site, improving operational flexibilty and effiencies and reducing EGLE's level of effort/cost required to maintain it.

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concentrations). Weston recommended and conducted a pilot test with a non-phosphate-based scale inhibitor (Redux 390) to prevent calcium carbonate scale formation and potentially disperse/flush out any residual hardness scale and insoluble iron. The pilot test was successful and demonstrated that the scaling would be reduced significantly using the inhibitor. As a result, an injection system was permanently installed and included a metering pump, inline mixer, injection port, and Redux 390 as a scale inhibitor. The use of the inhibitor has significantly reduced the amount of scale buildup in the system and the level of cleaning/maintenance required.

The existing monitoring system is based on the use of an on-site computer that interfaces with a server maintained by a system service company. Data that are uploaded to the server include photographs of the equipment and outfall, influent and effluent flow rates, pressure, extraction well pump speeds, and system alarms. The uploaded data can be viewed remotely and allow for monitoring and troubleshooting of the treatment system. Automatic messages are also sent to the O&M TC regarding system shutdown or alarms. Treated groundwater is discharged from the treatment system via an NPDES permit. Weston reviews influent and effluent data and completes the monthly NPDES reporting to the State.

Weston's continued preventative maintenance program and effective communication with the O&M TC and the State Project Manager (SPM) have kept this system operational and functional in intercepting the groundwater plume.

Completion date: Ongoing.

Project 3 Reference Information

PROJECT NAME:

Groundwater Extraction and Treatment: Confidential Manufacturing/Chemical Facility (Section 3, Table 2, Project No. 9)

PROJECT ADDRESS:

Confidential Location

KEY PERSONNEL:

J. Ruiz | C. Douglas | M. Bakkila | M. Castillo | M. Abbott | K. Mooney | E. Coggin | B. Fletcher | K. Frey | J. Myers | V. Dello Russo | T. Bosko | S. Shankar | S. LeTarte | T. Lyon | K. Martindale | O. McMillen | T. Oberman

PROJECT CITY / STATE / ZIP:

Chicago, Illinois 60628

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Jen Deka - Confidential Client | 216-566-1618 | Jennifer.L.Deka@sherwin.com

PROJECT DESCRIPTION:

A large historical manufacturing (more than 100 acres) led to widespread environmental impacts, including soil and groundwater contamination, two on-site landfills, and free product. Weston led the site investigation, remedy evaluation, RD, and RA, and performs O&M of installed remedies. Weston's team has successfully negotiated remedies with EPA and IEPA based on site-specific, risk-based criteria.

Weston prepared construction designs/drawings and biddable specifications, solicited bids, evaluated contractor bids, procured contractors, and supervised the installation of a groundwater containment, extraction, and treatment system as part of an RA required under a Consent Decree with the State of Illinois.

The groundwater containment system includes approximately 100,000 square feet (sf) of soil-bentonite slurry wall, installed to depths up to 30 feet below grade, as well as 15,782 sf of steel sheet pile wall. The groundwater extraction system includes underground water conveyance conduits, 15 precast vaults housing extraction wells/pumps/manifolds, and seasonal aboveground conveyance lines. Extraction pumps are operated using compressed air supplied by a central compressor. The extraction system spatially covers over 30 acres and is designed to extract 20 gpm. The groundwater treatment system includes iron removal unit, bag filters, centrifugal filter, air stripper, GAC, organoclay filter media, filtration system, and an activated alumina filter



medium. Weston procured supplemental treatment equipment and installed and integrated this equipment into the existing system when the discharge standards were revised to include arsenic. The supplemental equipment includes chemical dosing equipment to precipitate metals using coagulation/flocculation followed by sludge thickening and dewatering.

The system is monitored remotely using a programmable logic controller (PLC) system and is operated yearround. Water is discharged through underground piping to an outfall in a nearby ditch. The discharge at this outfall is monitored under an NPDES permit. O&M activities include extraction system expansion with additional wells, continuous groundwater monitoring with pressure transducers, pump testing for extraction system optimization, and groundwater treatment system optimization.

Weston continues to operate and maintain the groundwater extraction and treatment systems and ensure NPDES discharge standards are met. Our design team's ability to identify, procure, and integrate used water treatment equipment in response to a changing standard resulted in a significant savings as well as reuse of equipment that was going to be scrapped.



APPENDIX B-10: UNDERGROUND / ABOVEGROUND STORAGE TANK (UST/AST) REMOVAL / DEMOLITION / SOIL EXCAVATION / CLOSURE

Project 1 Reference Information

PROJECT NAME:

Philadelphia Street Site: Petroleum-Contaminated Soil Excavation (Section 3, Table 2, Project No. 12)

PROJECT ADDRESS:

665 East Philadelphia Street

KEY PERSONNEL:

C. Douglas | M. Abbott | J. Myers | T. Lyon | O. McMillen

PROJECT CITY / STATE / ZIP:

Detroit, Michigan 48202

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Beth Vens – EGLE RRD | 586-753-3825 | VensB@michigan.gov

PROJECT DESCRIPTION:

The Philadelphia Street Site is a brownfield property that was the location of a former gasoline service station and was impacted by LUSTs. Contaminated soil was present at the site and required removal to facilitate the redevelopment and reuse of the property.

Weston prepared biddable specifications using DCSPEC and assisted EGLE during the advertisement and bidding process. Following contract award, we coordinated with the selected TC and conducted oversight of the excavation, transportation, and disposal of petroleum-contaminated soil from the Philadelphia Street Site.

The excavation activities were conducted to achieve EGLE's goal of removing petroleum-impacted, sourcearea soils to allow for redevelopment of the property. Weston completed a site investigation characterizing soil and groundwater contamination for use in completion of the biddable specifications and development of material quantities requiring removal. A total of 3,900 tons of contaminated soil and 7,850 gallons of contaminated water were removed and properly disposed of as non-hazardous materials. Following removal of the contaminated soil, the excavation was backfilled, compacted, and resurfaced. Weston completed VSR sampling from the excavation prior to backfilling. The

sampling from the excavation prior to backfilling. The sampling confirmed that all of the impacted soil had been successfully removed.

Under the supervision and direction of Weston, the TC successfully removed impacted soil and groundwater, eliminating risks to human health and the environment and

allowing for beneficial reuse and redevelopment of the site.

Weston coordinated with EGLE, the City of Detroit, and the State of Michigan Land Bank on the Philadelphia Street brownfield site.

<u>Completion date</u>: April 2020.





Under Weston's direction and oversight, the TC removed and disposed of 3,900 tons of petroleum-contaminated soil at the Philadelphia Street Site, allowing the State to redevelop the brownfield property for beneficial reuse.



Project 2 Reference Information

PROJECT NAME:

Tech Town (Former GM Property): Polychlorinated Biphenyls (PCBs) Soil Excavation and UST Removals (*Section 3, Table 2, Project No. 16*)

PROJECT ADDRESS:

300 Taylor Street

KEY PERSONNEL:

M. Bakkila | J. Ruiz | C. Douglas | M. Abbott | K. Mooney | B. Fletcher | K. Frey | J. Myers | V. Dello Russo | T. Bosko | S. Shankar | J. Emmendorfer | S. LeTarte | T. Lyon | K. Martindale | O. McMillen | T. Oberman

PROJECT CITY / STATE / ZIP:

Dayton, Ohio 45402

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Christopher Lipson – City of Dayton | 937-333-3820 | Chris.Lipson@daytonohio.gov

PROJECT DESCRIPTION:



One of several USTs Weston was responsible for removing from the Tech Town site is shown above. In this photo, the UST had been excavated and prepared for off-site transportation and disposal. Weston has supported the City of Dayton on the Tech Town project (a former GM facility) for over 10 years. The objective is to achieve No Further Action (NFA) determinations through the Ohio Voluntary Action Program (VAP) on select portions of the property, and to meet RCRA and TSCA obligations on the remaining parcel, concurrent with the redevelopment of the property.

Several USTs have also been removed and closed in accordance with the Ohio Bureau of Underground Storage Tanks. The most recent UST removal was completed in conjunction with a water main replacement project. The unregistered UST was discovered during trenching activities associated with the water main work. The water main work was temporarily halted to properly remove the UST and surrounding soil for off-site disposal, and to collect the necessary samples for closure.

Soil excavation was also completed along the Webster Street corridor to address an area of PCB-impacted soil adjacent to the road. This work was coordinated with the street widening project, while Webster Street was temporarily closed, to avoid future disruption to traffic and other logistical and safety concerns. Weston prepared specifications and construction drawings, solicited bids, evaluated contractor bids, procured a contractor, and supervised the excavation of PCB-contaminated soil from the Tech Town site for off-site transportation and disposal. The excavation activities were conducted in accordance with the TSCA Site-Wide Risk-Based Management of PCB-Contaminated Materials Work Plan to satisfy the requirement to remove soils exceeding PCB site-specific criteria.

The primary project tasks conducted to achieve project goals included preparing a right-of-way permit application as a result of the excavation location adjacent to an existing road; performing oversight of excavation activities necessary to remove the contaminated soil; coordinating waste approval with the landfill owner; and sampling to confirm excavation limits were complete and equipment decontamination efforts were adequate. Non-contaminated overburden was removed and stockpiled to reduce the volume of soil for disposal.
Department of Technology, Management & Budget (DTMB) 2023 Indefinite Scope Indefinite Delivery (ISID) for Environmental Services



Following excavation of the contaminated soil, the noncontaminated overburden was used as backfill, and a lowstrength mortar was used as supplemental backfill. Approximately 130 tons of PCB-contaminated soil were excavated over a period of 2 days and transported off-site for disposal.

Weston then conducted VSR sampling to confirm that remaining PCB concentrations were below the site-specific criteria. The excavation activities were coordinated with ongoing road widening (by others) to avoid disturbance of the new road. The expedited schedule met the demands of the ongoing road widening construction schedule, causing no delays.

Completion date: Ongoing.



Prior to initiating soil excavation along the Webster Street corridor, Weston coordinated phasing of the work in conjunction with the ongoing street widening project, ensuring no construction schedule delays, maximizing site safety, and avoiding potential disruption to traffic.

Project 3 Reference Information

PROJECT NAME:

Former U.S. Aviex Site: Demolition/Restoration for Commercial Use (Section 3, Table 2, Project No. 8)

PROJECT ADDRESS:

1056 Huntly Road

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Bakkila | L. Kammer | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Niles, Michigan 49120

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Priyank Patel – EGLE | 517-285-3724 | PatelP1@michigan.gov

PROJECT DESCRIPTION:

The Former U.S. Aviex Site, an NPL site, is the location of a former non-lubricating automotive fluids manufacturing facility. Weston completed demolition of the previously decommissioned groundwater treatment facility (GWTF) buildings that previously housed remedial systems at the site. Tasks included site inspection and hazardous materials evaluation; coordination of existing utility location with utility companies and property owner; preparation of the specifications and bid documents; procurement of demolition subcontractor; permit evaluation; demolition and site restoration oversight and air monitoring; disposal manifest approval and tracking; and preparation of a demolition completion report.

The two former GWTF buildings were constructed in 1993 and subsequently decommissioned. The buildings were single-story, steel sheet metal with a combined footprint of 400 sf and a height of 10 feet. The former GWTF buildings housed electrical controls, blowers, and pumps and included 800 sf of concrete pads, footings, and a pedestal to support the former air-stripping tower. The objectives were to remove remaining aboveground facilities; remove slabs, footings, and the concrete pedestal to 3 feet below grade; deactivate and cap abandoned remaining subsurface utilities; and restore the site for commercial use.

Weston confirmed the absence of hazardous materials and verified utilities were deactivated prior to demolition. Demolition and restoration were completed in 1 day using an excavator with a hydraulic hammer attachment and a bulldozer. Segregation and off-site recycling of metal and concrete debris were completed by



skid steer with grappler attachment and a combination of live loading and roll-off management. Utilities were properly cut and capped below grade. Air monitoring concerns were not encountered due to use of water for dust suppression. Three tons of metal and 60 tons of concrete were recycled/disposed. Restoration required 80 tons of crushed, recycled asphalt and reuse of native topsoil.

This part of the project was completed ahead of schedule and on budget. The site was immediately ready for reuse by the property owner at the end of the day. Weston prepared and submitted a comprehensive letter report summarizing the project.

Completion date: Ongoing.



APPENDIX B-11: VAPOR INTRUSION ASSESSMENTS / RISK MITIGATION / DESIGN / INSTALLATION / O&M SERVICES

Project 1 Reference Information

PROJECT NAME:

Hamburg-Unadilla Road Contamination Area Site (Former ACO Division – Pittsfield Products): VI Mitigation Design and O&M (Section 3, Table 2, Project No. 10)

PROJECT ADDRESS:

461 North Dexter St

KEY PERSONNEL:

C. Douglas | J. Ruiz | E. Coggin | J. Myers | V. Dello Russo | T. Lyon | O. McMillen

PROJECT CITY / STATE / ZIP:

Pinckney, Michigan 48169

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Rebecca Taylor – EGLE RRD | 517-284-5160 | TaylorR@michigan.gov

PROJECT DESCRIPTION:

Weston evaluated the VI pathway associated with a chlorinated solvent (primarily TCE) groundwater plume that threatens residential areas and a school in Pinckney. Weston assisted EGLE in providing graphics and technical support to educate residents and obtain access agreements at a public information meeting. Weston distributed requests for sampling and facilitated sampling access for 20 residences and a school for VI sampling within the footprint of the groundwater plume, and assisted with the timely reporting of sampling results to residents. Weston interviewed residents and completed building inspections and a hazardous materials inventory for each location prior to sampling.

Weston conducted multiple VI sampling events by applying the most recent EGLE field, laboratory, and data assessment protocols. Leak testing was performed at each soil-gas well and Vapor Pin[®] using helium gas and the EGLE vapor shroud to ensure representative samples. Bottle-VacTM samples were submitted to EGLE's Environmental Laboratory for Toxic Organics (TO)-15 analyses. Indoor air samples (24-hour) were collected using 6-liter SUMMA[®] canisters during each sampling event co-located with Vapor Pin[®] sampling, enabling direct correlation of sub-slab and indoor air data. Upon analytical data receipt, Weston tabulated the findings and compared the results to applicable VI screening levels (VISLs).

Weston completed installation of Vapor Pins[®] and collected sub-slab vapor samples along with co-located indoor air samples at 12 residences and the school. Based on the VI analytical results of the sub-slab and indoor air vapor samples, it was determined that one residence exhibited unacceptable VI risks. Weston deployed temporary air purifying units (APUs) and completed pressure field extension testing, design, and installation of a sub-slab depressurization system (SSDS) to mitigate the risks. The mitigation system was installed within 1 week of receipt of results indicating sub-slab TCE concentrations above criteria.

Weston conducted quarterly inspection and O&M of the system to ensure mitigation efficiency. Analytical results were compared to EGLE-established site-specific criteria and media-specific volatilization to indoor air screening levels. The SSDS was shown to reduce the indoor air risks as designed, and Weston was able to complete the work under budget and within an accelerated timeframe.

Completion date: July 2022.



Project 2 Reference Information

PROJECT NAME:

Dry Cleaner Facility (Snedicor's Cleaners): Vapor Intrusion Investigation, Mitigation, Remediation, and O&M. (Section 3, Table 2, Project No. 5)

PROJECT ADDRESS:

220 S. Michigan Ave

KEY PERSONNEL:

C. Douglas | J. Ruiz | K. Mooney | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Howell, Michigan 48843

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Rebecca Taylor – EGLE RRD | 517-284-5160 | TaylorR@michigan.gov

PROJECT DESCRIPTION:

Weston was contracted by EGLE to complete a VI investigation at an existing dry cleaner facility in a mixed residential-commercial area in downtown Howell, MI. The dry cleaners conducted a preliminary investigation (soil, groundwater, and vapor sampling) that indicated all three media were contaminated with dry-cleaning solvents (tetrachloroethylene [PCE] and TCE), which was reported to the State.

Weston was contracted to conduct an emergency evaluation and mitigation of VI exposure risks. The VI instigation was completed by installing vapor monitoring points inside the buildings to collect vapor (soil-gas) samples from beneath the concrete, following the State of Michigan vapor sampling guidance.

We determined that the presence of dry-cleaning solvents and associated vapors present in the soils beneath the building posed unacceptable exposure risks. Our team completed sub-slab soil-gas and indoor air sampling to delineate the extent of CVOC impacts, identifying three additional potential CVOC source areas within the same city block area. We documented conditions exceeding sitespecific VISLs in seven adjoining commercial buildings, resulting in temporary evacuations of three of the buildings. Temporary APUs were deployed in five of the buildings.

Weston procured and facilitated the expedited design/installation of two combined SSDSs customized to mitigate five of the buildings simultaneously and efficiently. One system initially required a 2,000-pound carbon treatment system prior to vapor discharge.



Due to the serious health risks posed by the VI at this site, Weston facilitated the expedited design of the vapor mitigation system, installing two combined SSDSs, which were customized for enhanced efficiency, enabling mitigation of all five buildings on-site at the same time.

This project was completed in an accelerated time frame due to the serious health risks posed by the VI. As a result of highly efficient mitigation implementation, including extended day and weekend work, business owners were allowed to return to their buildings within 1 month of the evacuation order, thereby meeting the proposed schedule. Weston conducted weekly and now quarterly O&M of the systems and indoor air sampling to verify the efficiency of the mitigation systems.

To assess groundwater impacts in the source areas and surrounding areas, and to define the direction of groundwater plume migration, we installed a series of groundwater monitoring wells and co-located soil-gas wells. VAS was then completed to guide additional plume characterizations.

Weston has worked closely with EGLE, the Department of Health and Human Services, the Livingston County Health Department, the City of Howell City Manager, business owners, and other stakeholders to meet a rapid schedule on this critical project. Ongoing or anticipated project work includes additional groundwater investigations, soil vapor surveys, potential building demolition oversight, CSM development, expanded



mitigation system implementations as needed, and eventual study of feasible alternatives for source area remediation.

Completion date: Ongoing.

Project 3 Reference Information

PROJECT NAME:

Former U.S. Aviex Site: VI Assessment/Investigation/Evaluation of Mitigation Options (Section 3, Table 2, Project No. 8)

PROJECT ADDRESS:

1056 Huntly Road

KEY PERSONNEL:

C. Douglas | J. Ruiz | M. Bakkila | L. Kammer | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Niles, Michigan 49120

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Priyank Patel – EGLE RRD, Superfund Section | 517-285-3724 | PatelP1@michigan.gov

PROJECT DESCRIPTION:

Weston completed VI investigations at two residences adjacent to the former U.S. Aviex property to quantify concentrations of chlorinated solvent vapors in subsurface soil, beneath the buildings, and in indoor air that may have migrated from impacted soil and groundwater. Soil-gas monitoring wells were installed between the residences and the property boundary at varying depths to determine the vertical concentration gradients within the vadose zone. Weston installed Vapor Pin[®] in the basement of one residence to determine VOC concentrations immediately below the building foundations.

Assessing the VI pathway required an evaluation of soil-gas, sub-slab vapor, and indoor air VOC concentrations compared to Part 201 site-specific criteria in conjunction with careful inspection and documentation of the conditions of each residence. Other factors that contributed to the likelihood of exposure included subsurface soil conditions, the vertical and lateral distribution of the groundwater plume within the aquifer, building construction, and heating and ventilation system design. These factors were collectively assessed based on accumulated site data and used to formulate an initial CSM to determine whether the VI pathway was relevant. This CSM was then used as an iterative tool, with updates incorporated as additional data were generated or any changed conditions pertinent to the VI pathway were identified.

Weston conducted multiple VI sampling events by applying the most recent EGLE field, laboratory, and data assessment protocols. Leak testing was performed at each soil-gas well and Vapor Pin[®] using helium gas and the EGLE vapor shroud to ensure representative samples. Bottle-VacTM samples were submitted to the EGLE Environmental Laboratory for TO-15 analyses. Upon analytical data receipt, we tabulated the findings and compared the results to applicable Part 201 cleanup criteria and VISLs. Weston also used the EGLE volatilization to indoor air pathway (VIAP) calculator to derive Tier 2 screening levels.

Indoor air samples (24-hour) were collected using 6-liter SUMMA[®] canisters during each sampling event colocated with Vapor Pin[®] sampling, enabling direct correlation of sub-slab and indoor air data. Specific contaminants of concern (COCs) identified in the vapor and indoor air samples included multiple CVOCs, such as PCE, TCE, trichloroethane (TCA), and their daughter products.

Weston evaluated four VI mitigation technology options to determine the best option for mitigation of potential VI risk to indoor air quality for one of the residential properties. Our evaluation included a comparison of effectiveness, implementability, and cost for sub-slab vapor venting and/or depressurization, heat recovery ventilation, vapor barrier installation, and monitoring only. A summary of the mitigation option evaluation was provided to EGLE along with supporting vendor information.



Based on the low VOC concentrations detected in sub-slab soil-gas samples (non-detect or below screening levels) and the lack of site-related COCs detected in indoor air, additional monitoring was conducted and is currently being evaluated prior to determining the appropriate response action.

In addition, Weston completed the VI investigation near the residence, including multiple soil borings, soil samples, and the installation and sampling of numerous soil-gas wells. The investigation resulted in delineation of the extent of soil contamination and the extent of VI risks near the affected residence. We completed a VI RI Report for the EGLE Superfund Section, which was submitted to EPA Region 5 for use in consideration of site remediation activities. The next step will be to prepare an FS to determine potential remedies and estimated costs.

Completion date: Ongoing.

Project 4 Reference Information

PROJECT NAME:

Residential Wells-Holly Road Site: VI Investigation, Design, Remediation Oversight, and O&M (Section 3, Table 2, Project No. 14)

PROJECT ADDRESS:

7940 Holly Road

KEY PERSONNEL:

C. Douglas | M. Bakkila | K. Mooney | J. Myers | V. Dello Russo | T. Lyon | K. Martindale | O. McMillen

PROJECT CITY / STATE / ZIP:

Brighton, Michigan 48116

CONTACT NAME / PHONE NUMBER / EMAIL ADDRESS:

Rebecca Taylor – EGLE RRD | 517-284-5160 | TaylorR@michigan.gov

PROJECT DESCRIPTION:

The Residential Wells-Holly Road Site, located in Brighton, Livingston County, MI, is approximately 0.4 square mile in size, encompassing RRI within an industrial park to the north, a residential area, and a school zone. A dissolved phase CVOC plume, consisting primarily of TCE, migrated south from the RRI property passing beneath Lindbom Elementary School (now closed), numerous residences, and BHS prior to venting to Leith Lake approximately 3,000 feet downgradient of the release area.

A large and ongoing VI investigation was implemented beginning in January 2018 due to site-specific VI criteria for TCE calculated under Part 201, and the publication of MSSLs by EGLE. To date, Weston has coordinated access and completed VI assessments of more than 85 residences, including sampling of indoor air, sub-slab soil-gas, and soil-gas wells. Weston completed more than 100 Vapor Pin[®] installations in homes throughout the residential area, and sampled indoor air in more than 65 residences, a day care center, and BHS, as required. Interviews with residents, building inspections, and hazardous materials inventories were completed at each location to support interpretation of results. Materials potentially associated with detectable indoor air concentrations of VOCs could include household cleaning chemicals, cigarette smoke, automotive maintenance supplies, pesticides/herbicides, nail polish, paints, gasoline, and many other household products. Weston documented observations of the presence of any of these items, along with the weather conditions during sampling events and other site conditions noted on the Indoor Air Building Survey and Sampling Forms completed for each event.

Weston conducted multiple VI sampling events by applying the most recent EGLE field, laboratory, and data assessment protocols. Leak testing was performed at each soil-gas well and Vapor Pin[®] using helium gas and the EGLE vapor shroud to ensure representative samples. Bottle-VacTM samples were submitted to EGLE's Environmental Laboratory for TO-15 analyses. Indoor air samples (24-hour) were collected using 6-liter SUMMA[®] canisters during each sampling event co-located with Vapor Pin[®] sampling, enabling direct correlation of sub-slab and indoor air data. Upon analytical data receipt, Weston tabulated the findings and compared the results to applicable VISLs.



Weston coordinated with EGLE to implement timely reporting of results to residents and to implement followon sampling and/or mitigation where VI was identified. Weston deployed temporary APUs as requested. Weston completed pressure field extension tests and supervised the design and installation of numerous residential SSDSs.

Weston has conducted quarterly O&M performance monitoring that continues to verify the effectiveness of each mitigation system, with quarterly sampling of indoor air and exhaust stacks, recording of Vapor Pin[®] vacuum readings, and visual inspection of the systems. Weston supported EGLE with graphics and technical support to educate residents about the VI assessment process during a public information meeting, and provides regular updates to EGLE about tabulated and mapped results, O&M observations, and tracking of results reporting to residents.

Completion date: Ongoing.

Appendix C-1: Sample Field Activity Log



Weston Solutions of Michigan, Inc. 2501 Jolly Rd, Suite 100 Okemos, MI 48654

517-381-5920 WestonSolutions.com

DAILY FIELD LOG

Date: 12/5/22	Project No .: 20178.002.001.0040
Client Name: EGLE	Project Name: Snedwor's Cleaners
Employee Name(s): Olivia McMiller	(weston)
Contractor Name(s): Mitchell Slachter	and Jeff Croel (Matero)
Scope of Work: MW Installations	Phase III
0845 O. McMillen (weston)	on site to conduct MW Insallations
phase III SOLU.	an
ORDS Screen VW-12 PID:	0.0 ppm barametric pressure:
29.98 in Hq.	dy
0926 Set VW2-12-120522 bo	He#: 1745 reg #: 940 start
at 28 in Hg	en en
CA32 Collect VW-12-120522 at	- 2 in Hg an
1030 Mitch S. and Jeff C.	(Materie) on site as drilling crew
1035 O. McMillen conducts	safety tailgate meeting Topics:
traffic, slips/trips/falls, con	tominants of concerni.
1110 Begin drilling MW-16	(VAS-14) location. Blind drill
with 4.25" HSA.	du l
1225 Mattice break for lunch	MW-16 set, screened 36-
41.0 Ft bas. Bentonite grout	backfill remaining on
1315 Materia back from lunch	, begin to timistic computing
MID-16-	du au
1500 MW-ILE backtilled san	id: 34-41 ++ bgs bentonite
nove plug chips 32-37 # bgs.	bentante grait 0.5-32 Ft bgs
Complete.	and the life and the the state
Pris Begin well development	OF MIDTLE DIB: 40,45 HAD
1500: ~ al Ott by Friging 1	gai min and share only
Signature: Oliva Micheller -	ant ~ igos purgea, cuar color.

Page _____ of 2

THULL Performance, People.

Act with Integrity + Uve Safely + Advance Client Suizess + Deliver Esceptional Guality + Be Inclusive + Crieste a Better World; Be the Change



Weston Solutions of Michigan, Inc. 2501 Johy Rd. Suite 100 Okervos, Mr 48864

517-381-5920 WentonSolutions.com

DAILY FIELD LOG

Date: 12/5/22	Project No .: 20178.002.001.0040	
Client Name: EGLE	Project Name:	
Employee Name(s): Olivia McMill	en (wester)	
Contractor Name(s): Mitchell Slacht	er and Jeff Croel (Mateco)	
Scope of Work: MW Installations	Phase III	
1535 Mateco decon augers/	pack up equipment for day.	
weston labels drums with "p	ending analytical". 2.25 soil	
drums generated. 0.5 water	drum generated	
1615 Matero and Weston o	fsite oy	
\rightarrow		
$ A \mathcal{A} $		
2.2	B ()	
	\vee \vee \sim	
	\\	
Signature: Oliver McMullin	3	

Page 2 of 2

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Weston Solutions of Michigan, Inc. 2501 Jolly Rd. Suita 100 Okemos. Mi 48864

517-381-5920 WestonSolutions.com

DAILY FIELD LOG

Date: 12/18/22	Project No.: 20178.002.001.0040
Client Name: EGLE	Project Name: Snedicor's Cleaners
Employee Name(s): Olivia McMiller	n (weston)
Contractor Name(s): Mitchell Slach	ter and Jeff Croel (Matero)
Scope of Work: MW Installations P	hase III
0745 O. McMillin (wester)	and Mitch/Jeff (Mateco) on
site to continue MW Install	tions Phase III SOW - an
0750 Conduct safety tailapt	e meeting: traffic, slips/trips/
falls, struck-by, contaminants	of concern an
0755 Calibrate PID (RFW255	98) - passed - an
0825 Set up on MW-15 loc	ation our
1005 Complete macro-coring	to 40 Ft bas. Due to clay
observed at 35-40 ft bgs,	screen moved to 25-35 Ft bas.
for MW-15-	an
1045 Begin HSA drilling Mi	N-15 to 35 Ft bas - an
1135 Backfill MW-15- sand	1: 23-55, off bass benton te
chips: 21.0-23.0 ft bas. b	entonite grat 0,5-21,0f+ bgs.
1150 Jim Carpenter (owner o	F422 S. Michigan Ave have) stopped
by to inquire what work w	as being completed. Informed
by weston, installing monit	oring well for EGLE - on
1155 Jim corporter OH SITE	ay ay
1205 Matter break for lunch	, bentonite chips and grout remain
1255 Matero back on site	to continue back filling MW-15
1400 MW-15 installation con	put an
1430 begin developing MW-1	5. DIB: 35 FF bgs DIW.
18 ye tt bas	and the last state of the
Signature: Aluna Mar An	gal / min due to slow recharge

Page _ of _





Weston Solutions of Michigan, Inc. 2501 Jolly Rd, Suite 100 Okemos, MI 48864

517-381-5920 Weston Solutions com

DAILY FIELD LOG

Project No .: 20178 .002.001.0040 Date: alcola2 Project Name: Snedicor's Cleaners Client Name: EGLE McMillen (Wester) Employee Name(s): Olivia Mitchell Slachter and Jeff Croel (Matero Contractor Name(s): Scope of Work: NW Installations Phase III 1526 Complete development of MW-15~7.5 gal 1600 Arrive at 2010 S. Michigan Ave (Salon) their water spicket for Matero water tan Complete 1645 water refil avance, Weston label drums - MW-15 decon and I partial water drims 5011 Matero and Weston offsite The lina Mr. M. Signature: ay

Page 2 of 2

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Weston Solutions of Michigan, Inc. 2501 Jolly Rd, Suile 100 Okenos MI 48864

517-381-5920 Weston Solutions com

DAILY FIELD LOG

Project No.: 20178,002.001,0010 Date: 12/7/22 Project Name: Snedicor's Cleaner **Client Name:** 9612 Employee Name(s): Olivia McMillin (Weston Jeff Croel (Matero Contractor Name(s): tchell Slachter and Scope of Work: MW Installations Phase III and O, Mcrullen (wester) onsite OT35 Mateco (Mitch /Jeff tailgate meeting: traffic sips/tnps/falls 0740 Cond safety 0745 o Calibrate PID (RFW25598 -Passer 0700 MW -17 location or Set 00 44 a~ 0805 -3,0 and bas 11-on 0810 bean loased Jarna o macro-core 0940 Complete 40 to £ uro-corina -41. break last L tt 60 hefore ashino 10.0 0955 from Matero mak break 1015 Co MWa mp Maco-curina rilling Beam O ft 1040 HSP 41 36-41.0 £+ PVC Beam 111 Screened bas install hick-34 bas. - 41,0ft 32.0 E llina sand bento. chips are+ 32.0 34,057 £+ bend bas 0 an k fillina 120 (om 04 1215 lunch, set for form MW-1 y m development ft bas 20,41 ay 190 au 13360 min piraina Pain (o)or observed -1348 con xaina arala ay clear light tan staging area (Church cking 101 to 1350 Ma Signature: an

Page ____ of 2

Act with integrity + Live Safely + Advance Client Summers + Deliver Exceptional Quality + Be inclusive + Create a Better World: Be the Change



Weston Solutions of Michigan, Inc. 2501 Jolly Rd, Suile 100 Okemos, MI 48864

517-381-5920 WestonSolutions.com

DAILY FIELD LOG

Project No .: 20178,002.001,0040 Date: 2617122 Project Name: Snedicar's (leaners **Client Name:** EGLE Employee Name(s): ()Ivia McMillen (Weston) Contractor Name(s): Mitchell Slachter and Jeff Croel (Mateco) MW Installations Phase III Scope of Work: decon avers on decoving augurs. Set up on MW-1 1445 Complete to concrete pac flush mount and Complete Complete flish mount/pad at 1500 MW-15 on MW-16 to complete Flush 1505 ma concrete pad 1520 complete flush mant/pad at MW-16 an 1538 Set ip on MW-17 to complete Flush mant and concrete pad au 1555 Complete Flush mount/pad a Matero and westor off si 1600 e Olive metri Signature: an

Page 2 of 2

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Weston Solutions of Michigan, Inc. 2501 Johy Rd. Suite 100 Okemos. Mt 48864

517-381-5920 WestonSolutions.com

DAILY FIELD LOG

Date: 12/8/22	Project No .: 20178,002,001,0040
Client Name: EGLE	Project Name: Snedicor's Cleaner
Employee Name(s): Olivia McMillen	(weston)
Contractor Name(s): Mitchell Slach	ter and Jeff Croel (Matero)
Scope of Work: MW Installations	Phase III
0745 O. McMilun (wester) an	d Mitch /Jeff (materia) on
site to continue MW Inst	ellations Phase III, Materia
arrived early to refill wo	ter tank at 206 S, Michigan
the (Salon)	an
0755 Conduct safety tailo	ale meeting : traffic, slips/
trips/falls, pinch point	an
0800 Calibrate PID (RFW2	5598) - passed an
0820 Begin hand auguring	at MW-14 location -an
0830 Complete hand auguring	0.0-5.0 Ft bas - an
continue with macro-cone	an
0955 Complete macro coring	5.0 - 41.0 ft bgs. Matero
takes break	an
1015 Maleco off break, tr	ansition to HSA dalling
to 41 Fr bas	ay
1128 Begin to backfill MU	0-14: sand - 34-41, Oftby
bentonike chips: 32.0-34.0+	it bes bentonite grout : 0,5 -
32.0 ft bas	J ay
1135 Rebector Taylor (EGLE)	onsite an
1205 Kebecca Taylor (2GL2)	off site from drilling location
going to drive around other	MW locations installed and
check-in with hoses along S. Michigan Ave to possible	
Signature: Oliva the mill	the ang

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Weston Solutions of Michigan, Inc. 2501 Jolly Rd. Sute 100 Okemos. MI 48864

517-381-5920 WestonSolutions.com

DAILY FIELD LOG

Date: 1218122	Project No .: 20178, 002, 001, 0070
Client Name: EGLE	Project Name: Snodicor's Cleaners
Employee Name(s): Olivia Mc Miller	n (wester)
Contractor Name(s): Mitchell Slacht	er and Jeff (roel (Materia)
Scope of Work: MW Installations	Phaze III
1215 Mateco breaks for lu	nch an
1315 Makeco back from lun	ch, continue with bentonite
great back Fill on MW-14	an
1330 Backfill of MW-14	complete. 2 soil drims on
generated -	an
1340 Matero recieve more	drums an
1402 Begin well development	ot on MW-14 DTW: 26.65
ft bas, -	au
1412 Complete praina ~10	gal purged, color observed ' clear
1420 Matero decon dugers.	and and
1435 Arrive at VW-12 to	reset with new NC nser
1540 Matero pulls old 1	MC riser w/ co stainless-and
stel screen and overdnils	hole w/ sizs hollow rod
to bioff bgs.	and ill Qie I I I and
1545 Mateco off gite to pure	hase read to the hard value tan
1555 Mattice of site to re-in	Stall vol-12, alcon Co stain Uss
Steel screen.	AND Second 7 5-8 5 CL
Rock Complete 12-install of C	back have to all as a first a first
pare +111 = Sano, 5:3-1010 ++	by, bentinite (mips, 0:3 - 3.5
11 by:	Put - let and settle account
11025 Makes and 11 sta	of a le
Signature: Of wa Mr Mulle	an

Page <u>a</u> of <u>a</u>

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Weston Solutions of Michigan, Inc. 2501 Jolly Rd, Suite 100 Okemos, MI 48864

517-381-5920 WestonSolutions.com

DAILY FIELD LOG

Project No .: 20178, 002.001.0040 Date: 219122 Project Name: Snedicor's Cleaners Client Name: 9GL9 Employee Name(s): Olivia McHillen (Wester tchell Slachter and Jeff Croel (Hatero) Contractor Name(s): Scope of Work: Phase III NW Installation Mitch/Jeff (Materic) onsite 0745 O.M. and Millen (weston) meeting ! traffic, slps/trps/ safety tailable 0750 Conduc falls, anchpoint ai PID (RFW2 5598) -passed 0755 Calibrate aat MW-12 location an to hand APUD d' 10 ft bas Compl hles avaring get assed tree roo OBSB Begin Macro-cone O-41,0Ft bas a 1010 marmorno to staging area to switch to HSA -0 101 Uft Beam +0 has ter 104 PVC drilling, install Screene -04 omolete HSA nser an 0-41.0ft bas backfilling 34 + bas sand Beam MW-12-0 2.0 Ft bas 34.05+ benten. chios 22 bas weak Junch. bentinite chos mainin de atero with 13 rom lunch, continue Þ backfilling MW - D 0 ander MW-12 DTW: 25,90 ftbak. Begin veloonent -10 gal (omp) MW-10almin avord RUCAINA Beain pad installing ompleting Concrete 1420 flush mont and Signature: au

Page | of 2



Weston Solutions of Michigan, Inc. 2501 July Rd. Suite 100 Okembs, Mi 48864

517-381-5920 Weston Solutions.com

DAILY FIELD LOG

Project No .: 20178,002.001,0040 Date: 12/9/22 Project Name: Snedicor's (leaners EGLE **Client Name:** Employee Name(s): McMillen (Wester Contractor Name(s): Mitchell Slachter and Jeff Croel (Mateco MW Installations Phase III Scope of Work: 1440 complete flush mount pad a for MW-12 1500 Begin setting concrete installing flich mant and M11)-14 an MW-14 fligh mount pad 6 σ Camp equipment Seures in staging ane rking Stage hurch 10 to and eekend - Anns an 1500 Matero and wester off site Signature: They well an Page 2 of 2

Trust. Performance. People. Act with integrity + Erve Sofely + Advance Cleant Succost + Deliver Exceptional Quality + Be inclusive + Create a Better World, Be the Change Appendix C-2: Sample Field Weekly Report

From:	Douglas, Chris
То:	Taylor, Rebecca (EGLE)
Cc:	Ruiz, Joe
Subject:	Snedicor"s Cleaners - Weekly Fieldwork Summary (12/5/22-12/9/22)
Date:	Monday, December 12, 2022 3:16:00 PM
Attachments:	Figure 1 Phase III SOW 221209.pdf
	image001.png

Hi Rebecca:

Below is a detailed summary of the drilling and monitor well installation activities completed during the week of 12/5/22-12/9/22 at the Snedicor's Cleaners Site located in Howell, MI:

- Five of the six proposed monitor wells were installed (MW-12, MW-14, MW-15, MW-16, and MW-17). Please refer to the attached map for locations of each well. The final well (MW-13) will be installed during the week of 12/12/22.
- MW-12 was installed on 12/9/22. The well was screened from 36-41 ft bgs. This location was continuously sampled to log stratigraphy to the final depth.
- MW-14 was installed on 12/8/22. The well was screened from 36-41 ft bgs. This location was continuously sampled to log stratigraphy to the final depth.
- MW-15 was installed on 12/5/22. The well was screened from 25-35 ft bgs (10 ft screen was used because there was no continuous sand layer encountered above 35 ft, only small, saturated seams that were spread out). This location was continuously sampled to log stratigraphy to the final depth.
- MW-16 was installed on 12/6/22. The well was screened from 36-41 ft bgs. This location was blind drilled based on previous VAS boring results.
- MW-17 was installed on 12/7/22. The well was screened from 36-41 ft bgs. This location was continuously sampled to log stratigraphy to the final depth.
- PID readings were all 0.0 ppm for all intervals on each well.
- Vapor well VW-12 was replaced on 12/8/22 and re-named VW-12R. It was installed at the same depth as the original vapor well (8.0 ft bgs) and was over drilled to remove the old casing and screen using a geoprobe. The well was re-installed in the same location using the same flush mount. New well materials and new sand pack and bentonite were used to complete the replacement well. The PID reading on the well was 0.0 PPM on 12/12/22.
- Water and soil drums are being stored on the south side of the former Snedicor's Cleaners building (same place as before). Samples are being collected for waste characterization.

Weston will conduct oversight of surveying of the new wells on 12/21/22. Livingston Engineering is the selected surveyor and was used previously to survey wells at the Snedicor's Site. A complete round of groundwater samples will be collected from the existing and the new monitor wells in January. The replacement vapor well (VW-12R) will be sampled next week during the surveying.

Please let me know if you have any questions or need any additional information. I will let you know when we complete all of the activities this week.

Thanks, Chris R. Chris Douglas Weston Solutions of Michigan, Inc. 2501 Jolly Road, Suite 100 Okemos, MI 48864 517.381.5925 - direct 517.381.5920 - main 517.652.5392 - cell <u>C.Douglas @westonsolutions.com</u>





	300	DRAWN: JKM	DATE: 12/9/2022	CHECKED BY:	Figure 1
--	-----	------------	-----------------	-------------	----------

Appendix D: Contract Required Forms



Certification of a Michigan Based Business

(Information Required Prior to Contract Award for Application of State Preference/Reciprocity Provisions)

To qualify as a Michigan business:

Vendor must have, during the 12 months immediately preceding this bid deadline: or

If the business is newly established, for the period the business has been in existence, it has:

(Check all that apply):

- Filed a Michigan single business tax return showing a portion, or all the income tax base allocated or apportioned to the State of Michigan pursuant to the Michigan Single Business Tax Act, 1975 PA 228, MCL • ~208.1 – 208.145: or
- Filed a Michigan income tax return showing income generated in or attributed to the State of Michigan; or

Withheld Michigan income tax from compensation paid to the bidder's owners and remitted the tax to the Department of Treasury; or

I certify that **I have personal knowledge** of such filing or withholding, that it was more than a nominal filing for the purpose of gaining the status of a Michigan business, and that it indicates a significant business presence in the state, considering the size of the business and the nature of its activities.

I authorize the Michigan Department of Treasury to verify that the business has or has not met the criteria for a Michigan business indicated above and to disclose the verifying information to the procuring agency.

Bidder shall also indicate one of the following:

X Bidder qualifies as a Michigan business (provide zip code: <u>48864</u>)

Bidder does not qualify as a Michigan business (provide name of State: _____).

Principal place of business is outside the State of Michigan, however service/commodity provided by a location within the State of Michigan (provide zip code: ____)



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET State Facilities Administration Design & Construction Division

Bidder: Weston Solutions of Michigan, Inc.

Joseph Ruiz, Program Manager Authorized Agent Name (print or type)

1/11/2023

Authorized Agent Signature & Date

Fraudulent Certification as a Michigan business is prohibited by MCL 18.1268 § 268. A BUSINESS THAT PURPOSELY OR WILLFULLY SUBMITS A FALSE CERTIFICATION THAT IT IS A MICHIGAN BUSINESS OR FALSELY INDICATES THE STATE IN WHICH IT HAS ITS PRINCIPAL PLACE OF BUSINESS IS GUILTY OF A FELONY, PUNISHABLE BY A FINE OF NOT LESS THAN \$25,000 and subject to debarment under MCL 18.264.



Responsibility Certification

The bidder certifies to the best of its knowledge and belief that, within the past three (3) years, the bidder, an officer of the bidder, or an owner of a 25% or greater interest in the bidder:

- (a) Has not been convicted of a criminal offense incident to the application for or performance of a contract or subcontract with the State of Michigan or any of its agencies, authorities, boards, commissions, or departments.
- (b) Has not had a felony conviction in any state (including the State of Michigan).
- (c) Has not been convicted of a criminal offense which negatively reflects on the bidder's business integrity, including but not limited to, embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property, negligent misrepresentation, price-fixing, bid rigging, or a violation of state or federal anti-trust statutes.
- (d) Has not had a loss or suspension of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.
- (e) Has not been terminated for cause by the Owner.
- (f) Has not failed to pay any federal, state, or local taxes.
- (g) Has not failed to comply with all requirements for foreign corporations.
- (h) Has not been debarred from participation in the bid process pursuant to Section 264 of 1984 PA 431, as amended, MCL 18.1264, or debarred or suspended from consideration for award of contracts by any other State or any federal Agency.
- (i) Has not been convicted of a criminal offense or other violation of other state or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, which in the opinion of DTMB indicates that the bidder is unable to perform responsibly or which reflects a lack of integrity that could negatively impact or reflect upon the State of Michigan, including but not limited to, any of the following offenses under or violations of:
 - i. The Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.
 - ii. A persistent and knowing violation of the Michigan Consumer Protection Act, 1976 PA 331, MCL 445.901 to 445.922.



- iii. 1965 PA 166, MCL 408.551 to 408.558 (law relating to prevailing wages on state projects) and a finding that the bidder failed to pay the wages and/or fringe benefits due within the period required.
- iv. Repeated or flagrant violations of 1978 PA 390 MCL 408.471 to 408.490 (law relating to payment of wages and fringe benefits).
- v. A willful or persistent violation of the Michigan Occupational Health and Safety Act, 1974, PA 154, MCL 408.10001 to 408.1094, including: a criminal conviction, repeated willful violations that are final orders, repeated violations that are final orders, and failure to abate notices that are final orders.
- vi. A violation of federal or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.
- vii. Been found in contempt of court by a Federal Court of Appeals for failure to correct an unfair labor practice as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U. s. C. 158 (1980 PA 278, as amended, MCL 423.321 et seq).
- (j) Is NOT an Iran linked business as defined in MCL 129.312.

I understand that a false statement, misrepresentation, or concealment of material facts on this certification may be grounds for rejection of this proposal or termination of the award and may be grounds for debarment.

Bidder: Weston Solutions of Michigan, Inc.

Joseph Ruiz, Program Manager Authorized Agent Name (print or type)

Authorized Agent Signature & Date

I am unable to certify to the above statements. My explanation is attached.





ACKNOWLEDGMENT OF ADDENDUMS

PSC acknowledges receipt of Addenda: No. 1 dated: 12/7/2022,

No. <u>2</u> dated: <u>12/21/22</u> No. <u>dated</u>: <u>dated</u>: <u>dated</u>: <u>dated</u>: <u>dated</u>

APPENDIX 3

PROFESSIONAL CERTIFICATION

FORMS

(See pages 276 - 279)

APPENDIX 4

OVERHEAD ITEMS ALLOWED FOR THE PROFESSIONAL SERVICES CONTRACTOR FIRM'S HOURLY BILLING RATE CALCULATION

DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET, VEHICLE AND TRAVEL SERVICES SCHEDULE OF TRAVEL RATES FOR CLASSIFIED AND UNCLASSIFIED EMPLOYEES Effective January 1, 2023

MICHIGAN SELECT CITIES*

	Individual	Group Meeting (pre-arranged and approved)
Lodging**	\$85.00	
Breakfast	\$11.75	\$14.75
Lunch	\$11.75	\$14.75
Dinner	\$28.00	\$31.00

MICHIGAN IN-STATE ALL OTHER

	Individual	Group Meeting (pre-arranged and approved)
Lodging**	\$85.00	
Breakfast	\$9.75	\$12.75
Lunch	\$9.75	\$12.75
Dinner	\$22.00	\$25.00
Lodging	\$51.00	
Breakfast	\$9.75	
Lunch	\$9.75	
Dinner	\$22.00	
Per Diem Total	\$92.50	

OUT-OF-STATE SELECT CITIES*

	Individual	Group Meeting (pre-arranged and approved)
Lodging**	Contact Conlin Travel	
Breakfast	\$15.00	\$18.00
Lunch	\$15.00	\$18.00
Dinner	\$29.00	\$32.00

OUT-OF-STATE ALL OTHER

	Individual	Group Meeting (pre-arranged and approved)
Lodging**	Contact Conlin Travel	
Breakfast	\$11.75	\$14.75
Lunch	\$11.75	\$14.75
Dinner	\$27.00	\$30.00
Lodging	\$51.00	
Breakfast	\$11.75	
Lunch	\$11.75	
Dinner	\$27.00	
Per Diem Total	\$101.50	

Mileage Rates	Current
Premium Rate	\$0.655 per mile
Standard Rate	\$0.440 per mile

Incidental Costs Per Day (with overnight stay) \$5.00

* See Select Cities Listing

** Lodging available at State rate, or call Conlin Travel at 877-654-2179 or www.somtravel.com

SELECT CITY LIST SCHEDULE OF TRAVEL RATES FOR CLASSIFIED AND UNCLASSIFIED EMPLOYEES Effective January 1, 2023

Michigan Select Cities/Counties											
	CITIES	COUNTIES									
	Ann Arbor, Auburn Hills, Beaver Island, Detroit, Grand Rapids, Holland, Leland, Mackinac Island, Petoskey, Pontiac, South Haven, Traverse City	Grand Traverse, Oakland, Wayne									
Out of State Select Cities/Counties											
STATE	CITIES	COUNTIES									
Alaska	All locations										
Arizona	Phoenix, Scottsdale, Sedona										
California	Arcata, Edwards AFB, Eureka, Los Angeles, Mammoth Lakes, McKinleyville, Mill Valley, Monterey, Novato, Palm Springs, San Diego, San Francisco, San Rafael, Santa Barbara, Santa Monica, South Lake Tahoe, Truckee, Yosemite National Park	Los Angeles, Mendocino, Orange, Ventura									
Colorado	Aspen, Breckenridge, Grand Lake, Silverthorne, Steamboat Springs, Telluride, Vail										
Connecticut	Bridgeport, Danbury										
District of Columbia	Washington DC (See also Maryland & Virginia)										
Florida	Boca Raton, Delray Beach, Fort Lauderdale, Jupiter, Key West, Miami										
Georgia	Brunswick, Jekyll Island										
Hawaii	All locations										
Idaho	Ketchum, Sun Valley										
Illinois	Chicago	Cook, Lake									
Kentucky	Kenton										
Louisiana	New Orleans										
Maine	Bar Harbor, Kennebunk, Kittery, Rockport, Sandford										
Maryland	Baltimore City, Ocean City	Montgomery, Prince George									
Massachusetts	Boston, Burlington, Cambridge, Martha's Vineyard, Woburn	Suffolk									
Minnesota	Duluth, Minneapolis, St. Paul	Hennepin, Ramsey									
Nevada	Las Vegas										
New Mexico	Santa Fe										
New York	Bronx, Brooklyn, Lake Placid, Manhattan, Melville, New Rochelle, Queens, Riverhead, Ronkonkoma, Staten Island, Tarrytown, White Plaines	Suffolk									
Ohio	Cincinnati										
Pennsylvania	Pittsburgh	Bucks									
Puerto Rico	All locations										
Rhode Island	Bristol, Jamestown, Middletown, Newport, Providence	Newport									
Texas	Austin, Dallas, Houston, L.B. Johnson Space Center										
Utah	Park City	Summit									
Vermont	Manchester, Montpelier, Stowe	Lamoille									
Virginia	Alexandria, Fairfax, Falls Church	Arlington, Fairfax									
Washington	Port Angeles, Port Townsend, Seattle										
Wyoming	Jackson, Pinedale										

APPENDIX 5

CERTIFICATES OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 03/13/2023

THIS GETTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS DECENTRY CATE OF INSURANCE DOES NOT CONSTITUET & CONTRACT BETWEEN THE ISSUENCE MORED BY THE FOLLORS DEVELOPMENT THE CERTIFICATION OF INSURANCE DOES NOT CONSTITUET & CONTRACT BETWEEN THE ISSUENCE MORED BY THE FOLLORS DEVELOPMENT THE CERTIFICATION OF INSURANCE DOES NOT CONSTITUET & CONTRACT BETWEEN THE ISSUENCE MORED BY THE FOLLORS IF DEVELOPMENT THE CONTRACT BY ANALYED, subject to the torms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate holds to the certificate ho								00/10	72020		
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