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**Supplemental Task Order
2026 Services, Phase 2
Former Town of Newton Gravel Pit
AECOM Project No. 60135471 (82518)**

A. Purpose of Task Order

AECOM Technical Services, Inc. (AECOM) is to provide consulting and subcontractor services for the Former Town of Newton Gravel Pit project.

AECOM is presenting the 2026 supplemental task orders in two Phases. Phase 1 services were previously approved. AECOM has recently completed working with the City on engineering design decisions for the Western Source Area remediation. The outcome of these decisions determined the scope of services provided in the Phase 2 proposal presented below.

AECOM proposes to perform these services as a supplemental task order under the terms of our Consulting Agreement authorized by the City of Manitowoc (City) Common Council on November 23, 2009. These costs will be tracked and invoiced under AECOM's current Project No. 60135471.

B. Scope of Services

The proposed scope of services is limited to the summarized tasks below followed by more detailed descriptions of individual tasks:

- Task 30: Project Management, NOC Meetings, USFS Support, PSC Annual Report
- Task 34: November VOC Potable Well Sampling
- Task 36: SVE System Final Design
- Task 37: SVE System Construction and Start-up Testing
- Task 38: Treatment System O&M

Task 30: Project Management, NOC Meetings, USFS Support, PSC Annual Report:

Project Management: The Newton Pit Project Team (City personnel, Wisconsin Department of Natural Resources (WDNR or Department) project manager, outside counsel, the second Responsible Party Newell Operating Company (NOC), and the AECOM project manager) have periodic meetings. Most meetings are conference calls. Periodically, the City Team (City personnel and AECOM project manager) have project update and/or preparation meetings prior to conference calls with outside parties. Project management activities also include misc. client correspondence, subcontractor management, invoicing, etc.

Quarterly Meetings with the NOC Responsible Party: Included in this task is time to provide technical support to the City and outside counsel for Cost Recovery activities associated with the second Responsible Party, NOC. Quarterly meetings are expected in August 2026, October 2026, and January 2027.

Public Service Commission (PSC) Support: AECOM will provide technical environmental support to the City for PSC related correspondence, including preparation of the PSC required annual report due the beginning of December.

US Forest Service (USFS) Support: AECOM will provide technical environmental support to the City associated with the USFS Phyto-remediation work occurring at the Newton Pit. This typically includes scheduling of USFS field activities, providing technical review associated with site data, and review of USFS documents.

WDNR Liaison: AECOM will provide correspondence with Mr. Tauren Beggs, WDNR Project Manager, to define scope of work along with other technical support as determined by the City Team.

Task 34: November 2026 VOC Potable Well Sampling

As part of the semi-annual potable well sampling activities for 2026, AECOM will sample an estimated total of 10 potable wells in November. The specific wells to be sampled will be determined by the current sampling schedule in the Updated Potable Well Monitoring Work Plan. The scope of services for the sampling event is expected to include:

- Notification to the potable well owners to schedule the sampling (to be conducted by the City) and coordination between AECOM, the City, and owners to determine specific sampling times for AECOM field technicians to sample the private wells.
- Collection of VOC potable well water samples and quality control samples. The VOC quality control samples will include field duplicate and matrix spike/matrix spike duplicate samples. The number of quality control samples will be determined by AECOM field personnel.
- Submit an estimated 15 samples, including quality control samples, to a Wisconsin Administrative Code (WAC) Chapter NR 149 certified laboratory for analyses of VOCs (EPA Method SW 8260B).
- AECOM will assist the City with reporting the individual sampling results to both the potable well owners and the WDNR.

Well owner notification of analytical results will be performed by the City and is expected to include a cover letter explaining the results with an attached copy of the well-specific laboratory report. The WDNR will be copied on the well-owner reporting by its incorporation into the semi-annual report.

AECOM will prepare a semi-annual potable well sampling letter report that will include a written summary of the sampling event, summarized laboratory results in tabular form, a figure showing the results, and copies of laboratory reports. AECOM will provide a draft of the report to the City for review, incorporate one round of edits/comments from the city, finalize the report and submit it to the WDNR.

- If sampling results indicate that updates should be made to the number of Target Zone or Sentinel Zone wells (as provided for in the Updated Potable Well Monitoring Work Plan), those changes will be reflected in the number of potable wells sampled during subsequent sampling events.
- Laboratory subcontractor costs and AECOM expenses are estimates. Final costs will be based on invoicing.

Task 36: SVE System Final Design

AECOM met with City staff on June 4, 2026, to review design options for the Soil Vapor Extraction (SVE) Engineered Treatment System to be constructed at the Western Source Area. The final design is expected to include the following operational parameters and major system components.

Operational Parameters:

- System operation during the frost-free months.
- Electrical, 110/220V single phase 100A service, to be confirmed with City electrician.
- Wellhead vacuum, 24 inches water column (WC) with an airflow rate of 50 SCFM.
- Maximum concurrent operation of two extraction wells.

Major System Components:

- Wellhead piping assembly for connection of extraction wells to the manifold piping.
- Manifold piping from extraction wells to treatment system enclosure.
- System enclosure: 7-ft wide x 16-ft long x 7-ft tall dual axle enclosed trailer with man door, ramp door, SVE manifold pipe opening, SVE exhaust pipe opening, intake louver, exhaust fan vent, lights, outlets, and wiring for SVE skid.
- SVE equipment skid: including 3 Hp regenerative blower rated for 100-SCFM at 24 inches WC vacuum, influent filter, make-up air with filter and silencer, vacuum relief valve, discharge silencer, inlet manifold, exhaust stack with rain cap, condensate knock-out tank with H/H alarm level switch, sampling ports, system control panel, and system instrumentation to measure manifold pressure and air flow. The system does not include telemetry for remote monitoring.
- Passive light non-aqueous phase liquid (LNAPL) recovery from the extraction wells using absorptive socks, if appropriate, along with 55-gallon drum for storage of waste socks.

AECOM is working with the specialty remediation equipment supplier, Fliteway Technologies, Inc., on the final system design. This includes system component specifications, process and instrumentation diagram, system component drawings, final design approval, delivery schedule, and contracting via purchase order.

Once the SVE System design is finalized and documented, AECOM will prepare a Technical Memo that will incorporate two WDNR required submittals; 1) a WAC NR 724.11 *Design Plans and Specifications* document and 2) a WAC NR 724.13 *Operation and Maintenance Plan*. AECOM will provide a draft of the memo to the City for review, incorporate one round of edits/comments from the City, finalize the memo, and submit it to the WDNR without review fee.

Remediation equipment supplier subcontractor costs and AECOM expenses are estimates. Final costs will be based on invoicing.

Task 37: SVE System Construction and Start-up Testing

On-site SVE system construction and start-up services are to be provided by City and AECOM staff. Based on budget approvals and equipment ordering lead times, AECOM anticipates SVE system construction and start-up services to occur during September 2026.

City Construction Services: City staff will provide labor and materials for limited construction services to extend and connect electrical power to the treatment trailer, grading a gravel pad for the trailer, and construction of eight flush mount manhole structures at the extraction wellheads.

The City will be responsible for paying for electrical power to operate the SVE system. The City may want to make arrangement for sub-metering the SVE system electrical usage to facilitate possible reimbursement.

AECOM Construction Services: AECOM will provide construction services with labor and materials including delivery of the treatment equipment trailer from the equipment supplier to the Newton Pit, installation of the trailer on the gravel pad, extraction wellhead manholes, construction of two wellhead pipe assemblies with control valves and instrumentation, flexible PVC manifold piping/tubing with fittings, hard pipe PVC manifold piping with fittings, manifold header at the treatment trailer, LNAPL absorbent socks, 55-gallon waste storage drum, along with field screening instruments including groundwater/LNAPL interface meter, tedlar bags with vac-u-chamber sampling kit, photo-ionization detector (PID), and Drager or Gastech color detector tube sampling kits.

Start-up Testing: SVE system start-up is a two-step process. AECOM will conduct the start-up testing and train City staff for future system operation and maintenance (O&M) activities.

1) *Start-up Emissions Test:* Once the SVE system is operational, AECOM will conduct a 1-day start-up emissions test. The goal of the event is to operate the system for a couple of hours to verify the sub-surface radius of influence (ROI) and to obtain an air emission sample. The monitoring will include:

- Recording the SVE system operating parameters.
- Monitor the ROI using vacuum gauges installed on the surrounding extraction and monitoring wells to measure the sub-surface vacuum induced by the SVE system. This information will be used to determine the sequence of extraction wells to operate in the future.
- Obtain a single air emission sample for field analysis using a tedlar sample bag with the vac-u-chamber sampling kit. Once a sample is captured in the tedlar bag, it will be field analyzed by PID and Drager or Gastech color detector tube for volatile organic compounds (VOCs).
- Obtain a single air emission lab sample using Summa Canister sampling protocols. The Summa canister containing the air sample will be submitted to a Wisconsin Administrative Code (WAC) Chapter NR 149 certified laboratory for analyses of VOCs (EPA Method TO-15).
- The comparison of field and laboratory results will be made to inform future operational monitoring.
- The goal of the start-up emissions test is to see if the SVE system emissions exceed the WAC Chapter NR 419.07 4 (b) limits of 137 pounds of VOC compounds per day or an average of 5.7 lbs/hr.

If the initial emissions test exceeds the 5.7 lbs/hr of VOCs, then adjustments will be made to the operation of the SVE system and a retest will be conducted to check the emissions rate.

Once the emission rate is verified to be below the limit of 5.7 lbs/hr of VOCs, then the start-up procedure will continue to Step 2.

2) *Start-up, First Month of Operation:* WDNR O&M reporting requires the documentation of the VOC mass removed by the SVE system. SVE sub-surface extraction rates are known to have a logarithmic decay function where the mass removal rate will decrease very rapidly at first, and then steadily slow down.

To accurately document the mass removed during the first month of operation AECOM will conduct emissions sampling once a day for the first three days of operation, then once a week for the next three weeks of operation. During each monitoring event, AECOM will:

- Conduct minor maintenance, including LNAPL monitoring and absorbent sock exchanges.
- Record the SVE system operating parameters.
- Measure the ROI using vacuum gauges installed on the surrounding extraction and monitoring wells to measure the sub-surface vacuum induced by the SVE system.
- Obtain an air emission sample for field analysis (i.e., tedlar bag sample field analyzed by PID and Drager or Gastech color detector tube for VOCs). This is an estimated six field samples.

- Obtain an air emission lab sample using Summa Canister sampling protocols for laboratory analysis of VOCs by EPA Method TO-15. This an estimated six laboratory samples.
- Field and laboratory data will be reviewed and compiled into tables for operational reporting to the WDNR.
- Laboratory subcontractor costs and AECOM expenses are estimates. Final costs will be based on invoicing.

Task 38: Treatment System O&M

Operation & Maintenance (O&M) activities include both the groundwater treatment system (i.e., treatment pond) and the SVE system.

Treatment Pond O&M: The 2026 O&M budget for the groundwater treatment pond was previously approved in the 2026 Phase 1 proposal.

SVE System O&M: The SVE system has been designed to operate during the frost-free months of the year. Therefore, 2026 system operation will be stopped once temperatures are consistently below freezing, typically the end of November or into December.

AECOM will work with City staff to conduct SVE System O&M activities.

After Start-up and the first month of operation, the system will be checked on a weekly basis. The weekly checks will typically be performed by City staff and will be limited to checking system operation, recording operational parameters, and restarting the system, if necessary.

AECOM staff will conduct O&M site visits every three weeks for an estimated period of nine weeks (total of three visits). During each of these visits, AECOM anticipates rotating the active extraction well to facilitate mass extraction from the source area. To document the mass removal rate from each well, AECOM will obtain 'beginning' and 'ending' air emissions samples from each well and use the results to calculate the average mass removal from each extraction well rotation.

During the visits AECOM will:

- Conduct minor maintenance, including LNAPL monitoring and absorbent sock exchanges.
- Record the SVE system operating parameters.
- Measure the ROI using vacuum gauges installed on the surrounding extraction and monitoring wells to measure the sub-surface vacuum induced by the SVE system.
- Obtain an air emission sample for field analysis (i.e., tedlar bag sample field analyzed by PID and Drager or Gastech color detector tube for VOCs). This is an estimated six field samples.
- Obtain an air emission lab sample using Summa Canister sampling protocols for laboratory analysis of VOCs by EPA Method TO-15. This an estimated six laboratory samples.
- Field and laboratory data will be reviewed and compiled into tables for operational reporting to the WDNR.
- Laboratory subcontractor costs and AECOM expenses are estimates. Final costs will be based on invoicing.

At the completion of the 2026 operational period, AECOM will prepare a Technical Memo that will incorporate two WDNR required submittals; 1) a WAC NR 724.15 *Documentation of Construction and Completion* report and 2) a WAC NR 724.17 *Long-term Monitoring* report. AECOM will provide a draft of the memo to the City for review, incorporate one round of edits/comments from the City, finalize the memo, and submit it to the WDNR without review fee.

C. Terms & Conditions

AECOM proposes to perform these services as a supplemental task order under the terms of our Consulting Agreement authorized by the City of Manitowoc Common Council on November 23, 2009, and as modified by negotiation in 2024. The new rates will hold for a period of three years (through May 31, 2027) with a review of the rates starting in early 2027.

D. Compensation

The total cost to complete the described activities is estimated to be **\$ 239,040**. The sub-totals for each task are as follows:

<u>Task</u>	<u>Sub-Total</u>
• Task 30: Project Management, NOC Meetings, USFS Support, PSC Annual Report	\$ 35,150
• Task 34: November VOC Potable Well Sampling	\$ 17,415
• Task 36: SVE System Final Design	\$ 16,935
• Task 37: SVE System Construction and Start-up Testing	\$ 128,390
• Task 38: Treatment System O&M	\$ 41,150
Total	\$ 239,040

Activities outside the scope of services described in this proposal will only be completed with prior written approval.

F. Schedule

AECOM will commence the additional activities upon written authorization to proceed. By signing below and/or providing an email authorization and returning it to David Henderson at AECOM's Milwaukee, Wisconsin office, will serve as written authorization to proceed.

The above is understood and authorization to proceed is given as noted by the undersigned:

Approved by:
City of Manitowoc

Accepted by:
AECOM Technical Services, Inc.

Signature



John Rosier

Title

Midwest Department Manager
Title

Date

June 30, 2026
Date