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**Supplemental Task Order  
Balance of 2022 Services  
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 balance of the 2022 calendar year for the Former Town of Newton Gravel Pit project. 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 this change order. These costs will be tracked and invoiced under AECOM's current Project No. 60135471.

As you are aware, the world is experiencing a pandemic as it relates to the coronavirus COVID-19 ("Coronavirus"). This health emergency has the potential of impacting multiple facets of the project including, without limitation, labor, personnel, manufacturing, equipment, materials, transportation and related supply chains, all of which have the potential to adversely impact the critical path of the project schedule. These potential, unusual, and unavoidable delays are outside of the control of AECOM and cannot be anticipated or determined in advance. AECOM will exercise reasonable care to mitigate the potential impact of the Coronavirus to the extent within AECOM's reasonable control. AECOM will notify you in the event AECOM becomes aware of any potential impact to the work caused by the Coronavirus.

**B. Scope of Services**

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

- Project Management
- Area Wide VOC 5-Year Plan, Semi-Annual Potable Well Sampling – June 2022
- Area Wide VOC 5-Year Plan, Semi-Annual Potable Well Sampling – October 2022
- Expanded Potable Well Sampling **(TASK IS COMPLETE)**
- PFAS Site Investigation Work Plan Prep **(TASK NOT ANTICIPATED FOR 2022)**
- PFAS Potable Well Work Plan Prep **(TASK NOT ANTICIPATED FOR 2022)**
- PFAS Potable Well Sampling **(TASK NOT ANTICIPATED FOR 2022)**
- SVE & LNAPL Engineered Treatment System Specs, Plan Set, Bidding – **(TASK NOT ANTICIPATED FOR 2022)**
- SVE & LNAPL Engineered Treatment System Construction Observation – **(TASK NOT ANTICIPATED FOR 2022)**
- Operation & Maintenance – Groundwater Treatment System
- Operation & Maintenance – SVE & LNAPL Engineered Treatment System **(TASK NOT ANTICIPATED FOR 2022)**
- Annual VOC Groundwater & Surface Water Sampling – **(TASK NOT ANTICIPATED FOR 2022)**
- PFAS Groundwater and Surface Water Sampling **(TASK NOT ANTICIPATED FOR 2022)**

- Conceptual Site Model (CSM) Preparation and Report
- VOC Plume Delineation North of Viebahn Street **(TASK NOT INCLUDED IN 2022)**

#### Balance 2022 Project Management

The Newton Pit Project Team (City personnel, WDNR personnel, and the AECOM project manager) typically meet on a monthly or bi-monthly basis. Most meetings are convened at City Hall, but some meetings are conference calls (more prevalent during COVID). Occasionally, the City Team (City personnel and AECOM project manager) have a preparation meeting prior to meetings with regulators.

#### Health & Safety Plan Update:

AECOM will prepare an OSHA required site-specific Health and Safety Plan (HASP) update to cover the environmental field activities of AECOM staff.

#### Cost Recovery:

Included in this task is time to provide technical support to the City and Mr. Ned Witte, Godfrey & Kahn S.C., for Cost Recovery activities. It is anticipated that the level of this support will be nominal in 2022 unless the City requires litigation support. If litigation support is needed, additional funding will be requested.

#### WDNR Liaison:

AECOM will provide correspondence with Mr. Tauren Beggs, WDNR Project Manager, to define scope of work for PFAS or VOC sampling as necessary, along with other technical support as determined by the City Team.

#### Town Hall Meeting:

The Project Team anticipates conducting a town hall meeting in 2022. It is uncertain if the meeting will be virtual or in-person. AECOM will assist the Project Team by preparing materials for the presentation (i.e. slide show, figures, tables, etc.), participating in preparation meetings, participating in the town hall meeting, and supporting follow-up activities.

#### Water Main Support:

AECOM will provide technical environmental support to the City and MPU for the water main extension project. This includes periodic City Team meetings and regulatory support for the PSC submittals.

#### Balance of 2022 Area Wide VOC Five Year Plan, Semi-Annual Potable Well Sampling – June 2022

Conduct semi-annual potable well sampling activities for 2022, AECOM will sample an estimated total of 131 potable wells in June. The specific wells to be sampled will be determined by the existing Area Wide VOC Five Year Potable Well Sampling 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 an AECOM field technician to sample the private wells. Obtaining access agreements with homeowners is the responsibility of the City.
- Collect potable well water samples and quality control samples. The VOC quality control samples will include field duplicate and matrix spike/matrix spike samples. The final number of quality control samples will be determined by AECOM field personnel.
- Submit an estimated 141 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 WDNR and potable well owners. A potable well sampling letter report will be submitted to the WDNR by AECOM. The letter report 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. 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.
- The proposed scope of services does not include confirmation potable well water sampling if a new/replacement potable well is installed at a residence with an impacted well. These services will be provided under a separate cover if potable well replacement activities take place.
- If sampling results indicate that updates should be made to the number of Target Zone or Sentinel Zone wells (as provided for in the Area Wide VOC Five Year Potable Well Sampling 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.

Balance of 2022 Area Wide VOC Five Year Plan, Semi-Annual Potable Well Sampling – October 2022

As part of semi-annual potable well sampling activities for 2022, AECOM will sample an estimated total of 57 potable wells in October. The specific wells to be sampled will be determined by the Area Wide VOC Five Year Potable Well Sampling 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 an AECOM field technician to sample the private wells.
- Collect 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 quality control samples will be determined by AECOM field personnel.
- Submit an estimated 62 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 WDNR and potable well owners. A potable well sampling letter report will be submitted to the WDNR by AECOM. The letter report 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. 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.
- The proposed scope of services does not include confirmation potable well water sampling if a new/replacement potable well is installed at a residence with an impacted well. These services will be provided under a separate cover if potable well replacement activities take place.
- If sampling results indicate that updates should be made to the number of Target Zone or Sentinel Zone wells, 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.

**Balance of 2022 Expanded Potable Well Sampling (TASK IS COMPLETE)**

The Expanded Potable Well Sampling scope of work has been completed. The Area Wide VOC Five Year Potable Well Sampling Work Plan will continue to monitor the VOC plume.

**Balance of 2022 PFAS Site Investigation Work Plan Prep (TASK NOT ANTICIPATED FOR 2022)**

We do not anticipate NR 716 on-site PFAS investigation activities in 2022. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 PFAS Potable Well Work Plan Prep (TASK NOT ANTICIPATED FOR 2022)**

Preparation of a PFAS potable well work plan is not anticipated in 2022. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 PFAS Potable Well Sampling (TASK NOT ANTICIPATED FOR 2022)**

PFAS potable well sampling is not anticipated in 2022. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 Specs, Plan Sets, Bidding – SVE & LNAPL Engineered Treatment System (TASK NOT ANTICIPATED FOR 2022)**

Specification, plan sets, and bidding for the SVE and LNAPL treatment system is not anticipated in 2022. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 Construction Observation – SVE & LNAPL Engineered Treatment System (TASK NOT ANTICIPATED FOR 2022)**

Construction observation for the SVE and LNAPL treatment system is not anticipated in 2022. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 Groundwater Treatment System Operation & Maintenance**

Operation & Maintenance (O&M) activities for the groundwater treatment system (i.e., Treatment Pond) include working with City staff, discharge operations, discharge permit sampling, and operational/groundwater monitoring, as necessary. For budgeting purposes, O&M activities began in March (pre-ice out) and will be performed for the remainder of 2022.

- Wisconsin Pollutant Discharge Elimination System (WPDES) Discharge Sampling: In accordance with WPDES discharge permit requirements, AECOM will conduct pre-discharge monitoring of the pond surface water. Once the pre-discharge results indicate compliance with the permit discharge limits AECOM may begin discharging water from the pond to Silver Creek and simultaneously begin discharge permit monitoring. The work is anticipated to include:
  - Pre-discharge surface water sampling on a monthly basis.
  - If treatment pond discharge to Silver Creek is started, the following O&M activities will be initiated.
    - Discharge monitoring includes six weekly and four monthly sampling events. Budgeting includes AECOM assistance to City staff for the first three weekly sampling events. It is assumed that the remaining sampling events will be completed by City staff. Sampling events to include staff gauge monitoring, discharge flow monitoring, and sampling discharged surface water.

- Collect quality control samples, when applicable. The quality control samples will include field duplicate and laboratory-prepared matrix spike/matrix spike duplicate samples.
  - Submit an estimated 20 water samples (includes quality control samples) to a WAC Chapter NR 149 certified laboratory for analyses of VOCs (EPA Method SW 8260B), PAHs (EPA Method 8270), Total Recoverable Lead (EPA Method 6010), Oil, Fats, and Grease (EPA Method 1664), and Total Suspended Solids (EPA Method 160.2).
  - Compile and report the data to the WDNR on a monthly basis using the WDNR's Discharge Monitoring Report (DMR) forms. Incorporate the data into an annual groundwater monitoring report.
  - Laboratory subcontractor costs and AECOM expenses are estimates. Final costs will be based on invoicing.
- Annual Treatment System O&M Report: AECOM anticipates incorporating the NR 700 required remedial system operation annual report into the annual groundwater monitoring report. An initial discussion with the WDNR indicates combining the reports in this manner will be acceptable.

**Balance of 2022 SVE & LNAPL Engineered Treatment System Operation & Maintenance (TASK NOT ANTICIPATED FOR 2022)**

Operation and maintenance for the SVE and LNAPL treatment system is not anticipated in 2022. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 Annual VOC Groundwater & Surface Water Sampling – (TASK NOT ANTICIPATED FOR 2022)**

Annual VOC groundwater and surface water sampling is not anticipated in 2022 pending approval from WDNR. If work becomes required AECOM will provide a change order for the task.

**Balance of 2022 PFAS Groundwater and Surface Water Sampling (TASK NOT ANTICIPATED FOR 2022)**

- Groundwater and surface water sampling for PFAS in 2022 is not anticipated. These services would have included an estimated 60 groundwater monitoring wells and 10 staff gauge locations in Silver Creek. If work becomes required AECOM will provide a change order for the balance of the task.

**Balance of 2022 Conceptual Site Model (PFAS)**

As part of the Conceptual Site Model (CSM) for the Former Newton Gravel Pit based on data review of 2022, AECOM will prepare a CSM report of the PFAS data. The scope of services for the CSM is expected to include:

- Review of potable well, groundwater well, surface water, and treatment pond laboratory results. This includes creating a modeling database of the PFAS results and backchecking the data prior to analysis.
- Initial data analysis that includes isoconcentration maps, bar graphs, radar graphs, and other graphical tools to analyze the PFAS extent and delineate plumes.
- Statistical analysis of the data including the use of one or more of the following: principal component analysis, data science applications (i.e., artificial intelligence), and multivariate predictive models.

- Periodically presenting the CSM analysis results to the City for comments.
- Report writing to compile the data into a CSM report for submittal to the City and the WDNR. The report will include a summary of the data, figures showing interpretations of the data, presentation of data modeling and statistical analysis tools, and interpretation of the data to provide a conceptual site model that accounts for/describes the environmental impacts of PFAS observed during the investigation. The CSM is typically an iterative process with the initial report presenting the first interpretation of the data. Future reports may be prepared to refine the CSM as additional data becomes available.

**Balance of 2022 VOC Plume Delineation North of Viebahn Street (TASK NOT INCLUDED IN 2022)**

WDNR requires further investigation of the down-gradient groundwater VOC contaminant plume north of Viebahn Street. This work is not included for 2022. If work becomes required AECOM will provide a change order for the balance of the task.

**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 in 2020 to include labor rates based on a 2.7 DLX with 0% markup on subs and ODCs. AECOM will hold the labor 2.7 DLX and the 0% markup rates for the agreed to period of three years, with a review of the rates during 2023.

**D. Compensation**

The total cost to complete the described activities is estimated to be **\$ 220,720.00**. The sub-totals for each task are as follows:

<u>Task</u>	<u>Sub-Total</u>
<b><u>Balance of 2022 Services:</u></b>	
Project Management	\$ 57,370
VOC 5-Year Plan - Semi-Annual Potable Well Sampling – June	\$ 42,780
VOC 5-Year Plan - Semi-Annual Potable Well Sampling – October	\$ 22,820
Operation & Maintenance – GW Treatment System	\$ 15,490
Conceptual Site Model (PFAS)	\$ 82,260

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

AECOM has prepared this proposal to address activities through calendar year 2022 for which the scope of work required during that period is, in some cases, uncertain or loosely defined. We expect, based on our past conversations with the City, that additional services may be needed and that the scope of work presented herein will vary. AECOM will continue our close communication with you and advise on scope of work and budgetary matters throughout the period of this task order as to the level of effort and deviations in the scope of work.

**F. Schedule**

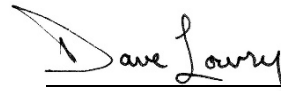
AECOM will commence the additional activities upon written authorization to proceed. By signing below and/or providing an email authorization and returning it to David Henderson at AECOM's Milwaukee, Wisconsin office, will serve as written authorization to proceed.

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**

  
\_\_\_\_\_  
David Lowry, P.E. (IL, MO)

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
Associate Vice President  
**Title**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
May 17, 2022  
**Date**