





# Remediation Workplan

## EXAMPLE ONLY - ADD OBJECTIVES AND TASKS AS APPLICABLE

**Project Title:** MPCA Remediation Proposal – Scenario A – Remedial Investigation Sampling Plan

### 1. Project Summary:

The site is not currently in operation but occupied by a former agricultural dry fertilizer plant and associated scale along with a maintenance garage. The fertilizer plant burned down in 1999 and all that remains is a cracked concrete slab. The maintenance garage, located northeast of the fertilizer plant is intact and in good condition. A stream runs east to west through the northern portion of the site. Past investigations have found elevated concentrations of trichloroethylene (TCE) above regulatory limits in groundwater on the property and at several downgradient properties to the west. In 1997, elevated concentrations of nitrates and herbicides were detected in the on-site water supply well adjacent to the former fertilizer building. Collected soil vapor samples have revealed TCE concentrations above MPCA Intrusion Screening Values (ISVs) at the site and at the adjoining properties to the west. A Remedial Investigation (RI) will be necessary to define the extent and magnitude of the release(s) and to determine appropriate Remedial Corrective Actions.

### 2. Statement of Problems, Opportunities, and Existing Conditions

- A parts cleaner was used at the former maintenance garage. The spent cleaner containing TCE was reportedly disposed on the ground north of the maintenance garage near the stream. Stained soils were visible north of the garage:
  - Soil
    - The extent of TCE impacts in soil have been adequately defined below the garage building.
    - The staining on the ground north of the maintenance garage has not been investigated and requires additional evaluation.
  - Soil Vapor/Sub-Slab Vapor
    - The extent of the TCE impacts in soil vapor have not been defined to the west within the residential area.
    - Sub-slab vapor impacts have not been fully investigated below the residential buildings in Blocks 5 and 7.
    - The extent and magnitude of TCE impacts in groundwater needs to be defined further west into the residential area.
  - Groundwater
    - Evaluate the extent and magnitude of TCE impacts in the private water wells in Blocks 5 and 7.
    - Private water wells within Blocks 5 and 7 have been impacted by TCE over the HRL of 0.4 ug/L. These wells should not be used as potable water supply wells.
- A dry bulk fertilizer plant burned down in 1999, exposing the existing concrete slab to the elements. In addition, the concrete slab is cracked. The soil around the concrete slab and along the crack may have been impacted by fertilizer compounds. There are also stained soils north of the fertilizer plant:
  - The ground cover around the fertilizer plant scale is gravel. The soil and groundwater may have been impacted by fertilizers/herbicides in this area.
  - A water supply well located northeast of the former fertilizer building is impacted with fertilizers and herbicides. The extent and magnitude of groundwater impacts requires additional evaluation.
  - The extent and magnitude of the fertilizer and herbicide impacts have not been investigated below, and exterior to, the building slab.
  -
- There are three petroleum storage tanks associated with the former operations that exist on the property. One UST connected to the floor drains located in the maintenance garage is suspected to have leaked; one fuel oil AST that has visible staining on the ground below the tank; and one gasoline UST installed in 1960 that has not been investigated.
  - The tanks will require proper removal from the property.
  - An investigation for potential petroleum impacts in soil and groundwater has not been conducted and will be required.

- Surface staining is present on the north side of the fertilizer and maintenance garage buildings. Records suggest a discharge has occurred and no follow-up investigation work has been conducted.

### 3. Goals, Objectives, Tasks, and Subtasks

The goal is to gather data and delineate soil, groundwater and soil vapor impacts to determine the appropriate remedial corrective action(s) where necessary.

#### Objective 1: Determine the extent of TCE impacts in groundwater, surface water and soil vapor

**Task A:** Enroll site in the MPCA Brownfields Program (if applicable)

**Task B:** Drill soil borings within Blocks 5 and 7 in an effort to delineate the western extent of the off-site groundwater and soil vapor impacts.

**Subtask 1:** Drill five push-probe soil borings on the west side of Blocks 5 and 7 to 15 feet to collect groundwater samples for VOCs.

**Subtask 2:** Log soil samples at predetermined intervals and screen with a PID meter.

**Subtask 3:** Drill five push probe borings to 3 to 5 feet to collect soil vapor samples (assuming the buildings are slab-on-grade and depth to groundwater is 6-10 feet below grade).

**Task C:** Install five nested monitoring wells at the site and downgradient of the site to monitor the TCE plume. Three monitoring wells on-site and two wells off-site located on the west side of Block 5.

**Subtask 1:** Drill and install five sets of nested, above-grade monitoring wells with screens at 15 to 20 feet and 30 to 35 feet below grade.

**Subtask 2:** Log soil samples at pre-determined intervals and screen with a PID meter.

**Subtask 3:** Develop and sample monitoring wells for VOC analysis two weeks after installation. Collect well stabilization parameters (i.e., dissolved oxygen, ORP, temperature, pH, etc.) prior to sampling to ensure the water column has stabilized.

**Subtask 4:** Survey well elevations.

**Subtask 5:** Conduct hydraulic conductivity testing in each well.

**Task D:** Conduct sub-slab soil vapor sampling in the buildings within Blocks 5 and 7.

**Subtask 1:** Obtain access to private properties prior to mobilization.

**Subtask 2:** Conduct Vapor Intrusion (VI) Building Surveys for the nine buildings within Blocks 5 and 7. Identify the use for each building and determine if the 33X ISV vapor screening level is applicable.

**Subtask 3:** Conduct sub-slab vapor sampling in eight buildings within Blocks 5 and 7. One of the nine buildings has already been tested. Analyze soil vapor samples for TO-15 (Table 1) analysis at a fixed laboratory. Compare the analytical results to the appropriate ISV values.

**Subtask 4:** Determine if expedited active mitigation (i.e., analytical values above the EISVs) is necessary or additional sub-slab sampling (i.e., analytical values above ISVs but below EISVs) during the next sampling season for the buildings.

**Subtask 5:** Use the five GIS map templates to properly record the steps of the VI investigation outlined above.

**Task E:** Conduct surface water sampling along the creek.

**Subtask 1:** Install up to three stream gages along the south bank of the stream to monitor stream water levels.

**Subtask 2:** Conduct surface water sampling at four locations along the stream.

**Subtask 3:** Evaluate the data set to appropriate surface water standards.

**Task F:** Compile data and complete a RI Report. The RI report should include VI Building Surveys and the five GIS map templates.

**Objective 1 Timeline:** Six-week timeline for drilling, sampling, analytical testing of the samples and preparation of the final report.

**Objective 1 Deliverables:** RI Report

#### Objective 2: Determine the extent of fertilizer impacts in soil and groundwater

**Task A:** Enroll the site in the Minnesota Department of Agriculture (MDA) AgVIC Program. Prepare a RI Work Plan for MDA review and approval.

**Task B:** Drill four push-probe borings to five feet within the gravel area around the scale and collect a groundwater sample from one of these push-probe borings if present.

**Subtask 1:** Composite soil samples according to MDA Guidance Document 11. Composite the four soil samples from around the scale from the 0-6", 2-2.5' and 4.5-5' intervals.

**Subtask 2:** Analyze soil samples from the 2-2.5' horizons first for fertilizers and herbicides as noted on Table 1. Hold the 0-6" and 4.5-5' soil samples until the 2-2.5' interval sample are analyzed.

**Subtask 3:** Analyze the groundwater sample for fertilizers and herbicides as noted on Table 1, if applicable.

**Task C:** Drill three push-probe borings to five feet outside of each garage door on each side of the former fertilizer building and collect a groundwater sample from each side of the fertilizer building if water is present.

**Subtask 1:** Composite soil samples from the three borings outside of each garage door from 0-6", 2-2.5' and 4.5-5' intervals.

**Subtask 2:** Analyze soil samples from the 2-2.5' horizons first for fertilizers and herbicides as noted on Table 1. Hold the 0-6" and 4.5-5' soil samples until the 2-2.5' interval samples are analyzed.

**Subtask 3:** Analyze the groundwater samples for fertilizers and herbicides as noted on Table 1, if applicable.

**Task D:** Drill six push-probe borings to five feet along the crack in the slab of the fertilizer building and collect a groundwater sample from two of the six push-probe borings if water is present.

**Subtask 1:** Composite soil samples from six borings along the crack in the floor slab of the fertilizer building. Composite samples at the 0-6", 2-2.5' and 4.5-5' intervals.

**Subtask 2:** Analyze soil samples from the 2-2.5' horizons first for fertilizers and herbicides as noted on Table 1. Hold the 0-6" and 4.5-5' soil samples until the 2-2.5' interval samples are analyzed.

**Subtask 3:** Analyze the groundwater samples for fertilizers and herbicides as noted on Table 1, if applicable.

**Task E:** Complete a Contaminant Impacts Survey for the former dry fertilizer building.

**Task F:** Compile data and complete a RI and Corrective Action Plan Report

**Objective 2 Timeline:** One week to develop the RI Work Plan. ~30-day MDA review.  
four to six-week timeline for drilling, sampling, lab analysis and reporting

**Objective 2 Deliverables:** Remedial Investigation and Corrective Action Plan

**Objective 3:** Evaluate and determine the extent of petroleum impacts at the site. Assume impacts have been identified from tank systems.

**Task A:** Excavation oversight for the removal of the three tanks. Collect PID readings and sample soils below the tanks according to MPCA guidance document c-prp3-01.

**Subtask 1:** Continuously screen soils with a PID meter.

**Subtask 2:** Collect a soil sample below each end of the USTs and collect one soil sample below the AST. Analyze the soil samples for the analytes outlined in Table 1.

**Task B:** Drill one worst-case boring in each tank basin for a total of three borings to determine the magnitude and extent of the release(s). Drill five radial borings to 15 feet around the three tanks to define the extent of the petroleum impacts; Drill three push-probe borings, one in each tank basin to a depth of approximately 30 feet below grade to collect soil and groundwater samples. Drill three push-probe borings three to five feet below grade to collect soil vapor samples.

**Subtask 1:** Continuously screen soil samples with a PID meter. Collect soil samples at the highest headspace reading or at the soil/groundwater interface according to MPCA Guidance Document c-prp4-01 as noted on Table 1.

**Subtask 2:** Collect soil samples and analyze them according to MPCA Guidance Document c-prp4-04 and as noted on Table 1.

**Subtask 3:** Collect groundwater samples from each boring. Analyze the groundwater samples as noted on Table 1.

**Subtask 4:** Collect soil vapor samples from 5 radial borings. Analyze the soil vapor samples as noted on Table 1.

**Task C:** Conduct receptor surveys

**Subtask 1:** Conduct a water well receptor survey and risk evaluation according to MPCA Guidance Document c-prp4-02

**Subtask 2:** Conduct a surface receptor survey and risk evaluation according to MPCA Guidance Document c-prp4-02

**Subtask 3:** Conduct a vapor receptor survey and risk evaluation according to MPCA Guidance Document c-prp4-02

**Task D:** Prepare the MPCA Excavation Report Worksheet and Limited Site Investigation (LSI) Report (Remedial Investigation Worksheet).

**Objective 3 Timeline:** Six-week timeline for drilling, sampling, lab analysis and reporting. Can be drilled in conjunction with other objectives.

**Objective 3 Deliverables:** Complete a LSI Report (Remedial Investigation Worksheet) according to MPCA Guidance Document c-prp4-01. If groundwater is impacted with petroleum from the tank system(s), monitoring wells installed during Objective #1 could be used to complete a RI.

**Objective 4:** Determine if a release has occurred north of the fertilizer and garage buildings in the area of the observed surface staining.

**Task A:** Drill five push-probe borings to 15 feet within the areas of discolored soils.

**Subtask 1:** Continuously screen soil samples with a PID meter. Collect soil samples at the highest headspace reading or at the soil/groundwater interface.

**Subtask 2:** Collect soil samples and analyze them as noted on Table 1.

**Subtask 3:** Collect groundwater samples from each boring. Analyze the groundwater samples as noted on Table 1.

**Task B:** Prepare summary report.

**Objective 4 Timeline:** Four-week timeline for drilling, sampling, lab analysis and reporting. Can be drilled in conjunction with other objectives discussed above.

**Objective 4 Deliverables:** Include the findings in the RI Report from Objective #1.

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# Attachment B \*Example Scenario Project Spreadsheet

\*EXAMPLE ONLY - ADD OBJECTIVES/TASKS/CLASSIFICATIONS WHERE APPLICABLE

**Project title:** MPCA Remedial Proposal - Scenario A - Remedial Investigation Work Plan

| Project Budget  | 1. Personnel    |             |             |                  |                     | 2. Subcontracting              |                         |                  | 3. Equipment |                     |           |                       |                  |                            |                        | 4. Other Expenses | Totals (Extended) |          |
|---|-----------------|-------------|-------------|------------------|---------------------|--------------------------------|-------------------------|------------------|--------------|---------------------|-----------|-----------------------|------------------|----------------------------|------------------------|-------------------|-------------------|----------|
|   | Project Manager | Scientist 2 | Scientist 1 | Field Technician | GIS/CADD Specialist | Push-Probe Drilling Contractor | Tank Removal Contractor | Fixed Laboratory | PID 11.7     | Water Quality Meter | Flow cell | Water Level Indicator | Submersible Pump | Vapor Pin Installation Kit | Slug Testing Equipment | Laser Level/Rod   | Mileage           |          |
|   | \$ 137.52       | \$ 97.48    | \$ 78.09    | \$ 78.09         | \$ 78.09            |                                |                         |                  | \$ 138.00    | \$ 102.00           | \$ 77.00  | \$ 27.00              | \$ 52.00         | \$ 60.00                   | \$ 110.00              | \$ 127.00         | \$ 0.54           |          |
| <b>Objective 1 - Determine TCE impacts in soil vapor and groundwater</b>  |                 |             |             |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| Task A  | 1               | 3           |             |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| Task B  |                 | 1           | 10          |                  |                     | XXX                            |                         | XXX              | 1            |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task C  |                 | 1           | 40          | 20               |                     | XXX                            |                         | XXX              | 1            | 1                   | 1         | 1                     | 1                | 8                          | 2                      | 1                 |                   | XXX      |
| Task D  |                 | 1           | 25          |                  |                     |                                |                         | XXX              | 1            |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task E  |                 |             |             | 10               |                     |                                |                         | XXX              |              | 1                   |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task F  | 2               | 2           | 40          | 10               | 8                   |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| <b>Total for Objective 1 Hrs</b>  | <b>3</b>        | <b>8</b>    | <b>115</b>  | <b>40</b>        | <b>8</b>            | <b>XXX</b>                     |                         | <b>XXX</b>       | <b>3</b>     | <b>1</b>            | <b>1</b>  | <b>1</b>              | <b>1</b>         | <b>8</b>                   | <b>2</b>               | <b>1</b>          | <b>XXX</b>        | <b>0</b> |
| <b>Objective 2 - Determine the extent of fertilizer impacts in soil and groundwater</b>   |                 |             |             |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| Task A  | 2               | 10          |             |                  | 2                   |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| Task B  |                 | 1           | 6           |                  |                     | XXX                            |                         | XXX              |              |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task C  |                 | 1           | 6           |                  |                     | XXX                            |                         | XXX              |              |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task D  |                 | 1           | 6           |                  |                     | XXX                            |                         | XXX              |              |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task E  |                 | 1           | 4           |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task F  | 2               | 2           | 15          | 10               |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| <b>Total for Objective 2 Hrs</b>  | <b>4</b>        | <b>16</b>   | <b>22</b>   | <b>10</b>        | <b>2</b>            | <b>XXX</b>                     |                         | <b>XXX</b>       | <b>0</b>     | <b>0</b>            | <b>0</b>  | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>               | <b>0</b>          | <b>XXX</b>        | <b>0</b> |
| <b>Objective 3 - Evaluate and determine the extent of petroleum impacts at the site. Assume impacts have been identified from tank systems.</b>     |                 |             |             |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| Task A  |                 | 1           | 8           |                  |                     |                                | XXX                     | XXX              | 1            |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task B  |                 | 2           | 14          |                  |                     | XXX                            |                         | XXX              | 1            |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task C  |                 | 1           | 8           |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task D  | 2               | 5           | 20          |                  | 4                   |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| <b>Total for Objective 3 Hrs</b>  | <b>2</b>        | <b>9</b>    | <b>50</b>   | <b>0</b>         | <b>4</b>            | <b>0</b>                       | <b>0</b>                | <b>0</b>         | <b>2</b>     | <b>0</b>            | <b>0</b>  | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>               | <b>0</b>          | <b>0</b>          | <b>0</b> |
| <b>Objective 4 - Determine if a release has occurred north of the fertilizer and garage buildings in the area of the observed surface staining.</b> |                 |             |             |                  |                     |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| Task A  | 1               | 1           | 12          |                  |                     | XXX                            |                         | XXX              | 1            |                     |           |                       |                  |                            |                        |                   |                   | XXX      |
| Task B  | 1               | 2           | 8           |                  | 2                   |                                |                         |                  |              |                     |           |                       |                  |                            |                        |                   |                   |          |
| <b>Total for Objective 4 Hrs</b>  | <b>2</b>        | <b>3</b>    | <b>20</b>   | <b>0</b>         | <b>2</b>            | <b>XXX</b>                     |                         | <b>XXX</b>       | <b>1</b>     | <b>0</b>            | <b>0</b>  | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>               | <b>0</b>          | <b>XXX</b>        | <b>0</b> |
| <b>Total Project Hours</b>  | <b>11</b>       | <b>36</b>   | <b>207</b>  | <b>50</b>        | <b>16</b>           | <b>0</b>                       | <b>0</b>                | <b>0</b>         | <b>6</b>     | <b>1</b>            | <b>1</b>  | <b>1</b>              | <b>1</b>         | <b>8</b>                   | <b>2</b>               | <b>1</b>          | <b>0</b>          | <b>0</b> |

**Table 1: Scenario A Sampling Plan  
High Risk Sampling Areas**

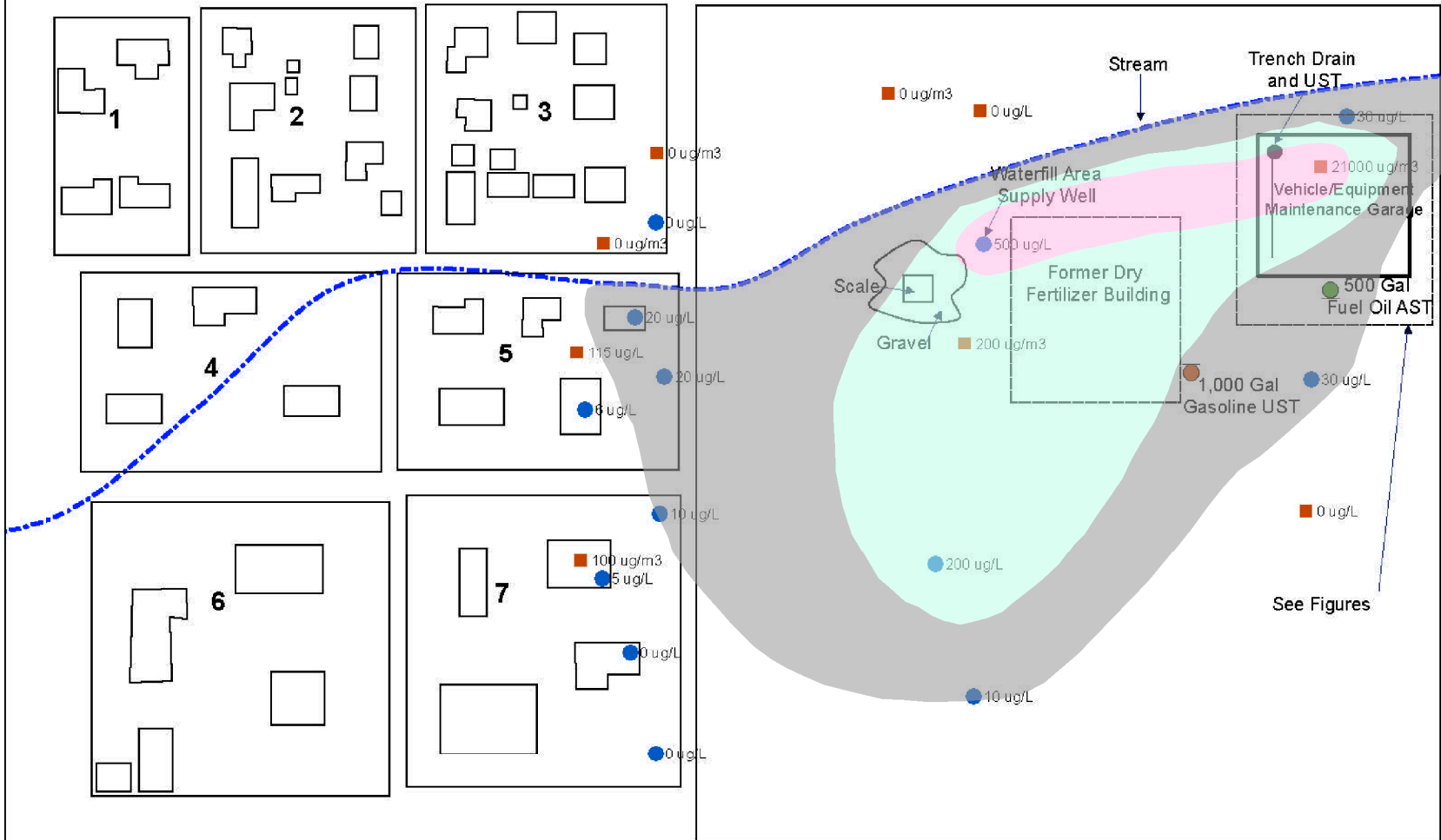
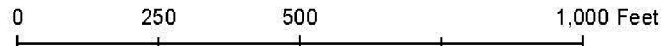
| Task Number   | General Drilling Location                                     | Chemicals of Concern                       | Number of soil borings                                  | Proposed boring depth             | Sampling Intervals                        | Special Instructions   | Proposed Laboratory Analyses |              |               |        |        |             |                      |                      |       |             |         |         |            |               |
|---|---|--|---|-----------------------------------|---|--|------------------------------|--------------|---------------|--------|--------|-------------|----------------------|----------------------|-------|-------------|---------|---------|------------|---------------|
|   |   |  |   |                                   |   |  | Sample Matrix                | VOCs by 8260 | PVOCs by 8260 | WI DRO | WI GRO | RCRA Metals | PAHs EPA Method 8270 | PCBs EPA Method 8082 | TO-15 | Metolachlor | Nitrate | Dicamba | Metribuzin | Pendimethalin |
| <b>Objective 1: Determine the extent of TCE impacts in groundwater and soil vapor</b>   |   |  |   |                                   |   |  |                              |              |               |        |        |             |                      |                      |       |             |         |         |            |               |
| Task B  | Blocks 5 & 7  | TCE  | 5 soil borings  | 15'                               | 10-15'                                    |  | GW                           | X            |               |        |        |             |                      |                      |       |             |         |         |            |               |
| Task B  | Blocks 5 & 7  | TCE  | 5 soil vapor borings                                    | 5'                                | 3-5'                                      |  | Air                          |              |               |        |        |             | X                    |                      |       |             |         |         |            |               |
| Task C  | 3 nested wells on-site and 2 nested wells off-site            | TCE  | 5 sets of nested monitoring wells                       | 5 to 20'<br>5 to 35'              | 15-20' and 30-35'                         | Wells may be used in future to monitor for petroleum parameters if there is a leak from one of the tanks (Obj. 3)            | GW                           | X            |               |        |        |             |                      |                      |       |             |         |         |            |               |
| Task D  | Blocks 5 & 7  | TCE  | 9 sub-slab samples                                      | 6"                                | 6" below slab                             |  | Air                          |              |               |        |        |             | X                    |                      |       |             |         |         |            |               |
| Task E  | Sampling at stream  | TCE, fertilizers, herbicides and petroleum | 4 sampling locations along the south side of the stream | N/A                               | Mid-depth                                 |  | W                            | X            |               | X      | X      |             |                      | X                    | X     | X           | X       | X       | X          |               |
| <b>Objective 2: Determine the extent of fertilizer impacts in soil and groundwater</b>  |   |  |   |                                   |   |  |                              |              |               |        |        |             |                      |                      |       |             |         |         |            |               |
| Task B  | Scale Area  | Fertilizer and herbicides                  | 4 soil borings  | 5'                                | 0-6", 2-2.5', 4.5-5'                      | Analyze soils from the 2-2.5' interval first. Analyze 0-6" interval if no detections. Analyze 4.5-5' interval if detections. | SS                           |              |               |        |        |             |                      | X                    | X     | X           | X       | X       | X          |               |
| Task C  | Exterior of fertilizer building                               | Fertilizer and herbicides                  | 15 soil borings   | 11 to 5'<br>4 to 15'              | 0-6", 2-2.5', 4.5-5'                      | Analyze soils from the 2-2.5' interval first. Analyze 0-6" interval if no detections. Analyze 4.5-5' interval if detections. | SS/GW                        |              |               |        |        |             |                      | X                    | X     | X           | X       | X       | X          |               |
| Task D  | Inside the fertilizer building                                | Fertilizer and herbicides                  | 6 soil borings  | 4 to 5'<br>2 to 15'               | 0-6", 2-2.5', 4.5-5'                      | Analyze soils from the 2-2.5' interval first. Analyze 0-6" interval if no detections. Analyze 4.5-5' interval if detections. | SS/GW                        |              |               |        |        |             |                      | X                    | X     | X           | X       | X       | X          |               |
| <b>Objective 3: Evaluate and determine the extent of petroleum impacts at the site. Assume impacts have been identified from tank systems</b>     |   |  |   |                                   |   |  |                              |              |               |        |        |             |                      |                      |       |             |         |         |            |               |
| Task A  | Gasoline UST  | Gasoline                                   | 2 soil samples  | -                                 | 1' below the tank                         |  | SS                           | X            |               |        | X      |             |                      |                      |       |             |         |         |            |               |
|   | Used oil AST  | Used oil                                   | 1 soil sample   | -                                 | 2' below the center of the tank           | Hold PAHs and metals   | SS                           |              | X             | X      |        | X           |                      | X                    |       |             |         |         |            |               |
|   | Holding tank (UST)  | Unknown                                    | 2 soil samples  | -                                 | 1' foot below the tank                    |  | SS                           |              | X             | X      | X      | X           | X                    |                      |       |             |         |         |            |               |
| Task B  | Gasoline UST  | Gasoline                                   | 13 soil borings   | 5 to 15'<br>3 to 30'<br>5 to 3-5' | According to MPCA Guidance Doc. c-prp4-01 | Analyze for lead if disposal is necessary  | SS                           |              | X             |        | X      |             |                      |                      |       |             | X       |         |            |               |
|   | Gasoline UST  | Gasoline                                   |   |                                   |   |  | GW                           | X            |               |        | X      |             |                      |                      |       |             |         |         |            |               |
|   | Gasoline UST  | Gasoline                                   |   |                                   |   |  | Air                          |              |               |        |        |             |                      | X                    |       |             |         |         |            |               |
|   | Used oil AST  | Used Oil                                   |   |                                   |   | Hold PAHs and metals   | SS                           |              | X             | X      |        | X           |                      | X                    |       |             |         |         | X          |               |
|   | Used oil AST  | Used Oil                                   |   |                                   |   | Hold PAHs and metals   | GW                           | X            |               | X      |        | X           |                      | X                    |       |             |         |         |            |               |
|   | Used oil AST  | Used Oil                                   |   |                                   |   |  | Air                          |              |               |        |        |             |                      | X                    |       |             |         |         |            |               |
|   | Holding tank (UST)  | Unknown                                    |   |                                   |   |  | SS                           |              | X             | X      | X      | X           | X                    | X                    |       |             |         |         | X          |               |
|   | Holding tank (UST)  | Unknown                                    |   |                                   |   |  | GW                           | X            |               | X      | X      | X           | X                    | X                    |       |             |         |         |            |               |
| Holding tank (UST)  | Unknown   |  | Air   |                                   |   |  |                              |              |               | X      |        |             |                      |                      |       |             |         |         |            |               |
| <b>Objective 4: Determine if a release has occurred north of the fertilizer and garage buildings in the area of the observed surface staining</b> |   |  |   |                                   |   |  |                              |              |               |        |        |             |                      |                      |       |             |         |         |            |               |
| Task A  | Surficial soil sampling north of fertilizer and garage bldgs. | Fertilizer, herbicides, petroleum, TCE     | 5 soil borings  | 5 to 5'                           | 0-2' and 2-4'                             |  | SS                           | X            |               | X      | X      | X           |                      | X                    | X     | X           | X       | X       | X          |               |

All isoconcentration boundaries are inferred.

- 10-100 ug/L TCE in Groundwater
- 100-500 ug/L TCE in Groundwater
- >500 ug/L TCE in Groundwater

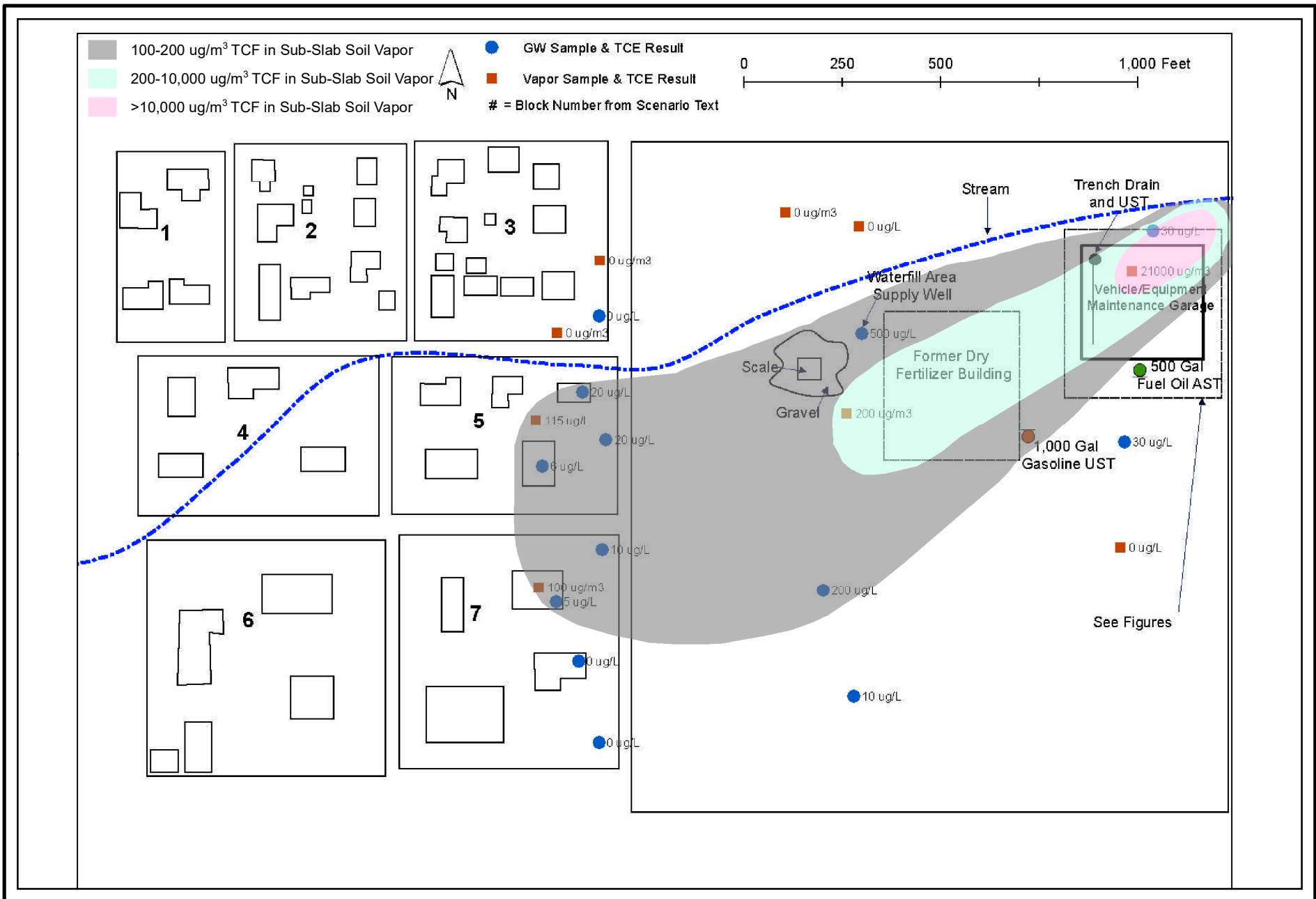


- GW Sample & TCE Result
- Vapor Sample & TCE Result
- # = Block Number from Scenario Text









# Remediation Design Workplan

**EXAMPLE ONLY - ADD OBJECTIVES AND TASKS AS APPLICABLE**

**Project Title:** MPCA Remediation Proposal – Scenario A – Remedial Design/Remedial Action

## 1. Project Summary:

The site is not currently in operation but is occupied by a former agricultural dry fertilizer plant and a maintenance garage. The fertilizer plant burned down in 1999 and all that remains is a cracked concrete slab. The maintenance garage, located northeast of the fertilizer plant is intact and in good condition. A stream runs east to west through the northern portion of the site. Past investigations have found elevated concentrations of trichloroethylene (TCE) above regulatory limits in groundwater at the site and at the downgradient properties to the west. In 1997, elevated concentrations of nitrates and herbicides were detected in the water supply well adjacent to the northwest of the fertilizer building. Collected soil vapor samples show TCE concentrations above Minnesota Pollution Control Agency (MPCA) Intrusion Screening Values (ISVs) at the site and at the adjoining properties to the west. A Remedial Investigation was conducted to define the extent and magnitude of TCE and other volatile organic compounds (VOCs), petroleum and agricultural products. This Workplan will discuss the Remedial Design/Remedial Action activities proposed at the site.

## 2. Statement of Problems, Opportunities, and Existing Conditions

- One on-site and at least three off-site water supply wells are impacted with elevated levels of TCE above the MDH HRL of 0.4 µg/L. One of the off-site water supply wells is utilized by a pregnant person. The water supply wells are reportedly 30 feet deep.
- Soil vapors, specifically TCE, are elevated above 33X Residential ISV of 70 µg/m<sup>3</sup> in at least one building occupied by a pregnant person.
- Soil vapors, specifically TCE, are elevated above 33X Industrial ISV of 230 µg/m<sup>3</sup> below the maintenance garage. The highest concentration was 21,000 µg/m<sup>3</sup> on the north side of the garage. The maintenance garage appears to be the location of the source for the TCE.
- Surface soils north of the fertilizer building, north of the maintenance garage building and below the existing used oil aboveground storage tank (AST) are stained.
- Elevated levels of fertilizer and pesticides have been found in the gravel around the scale. In addition, elevated levels of fertilizer and pesticides have been found around the fertilizer building slab, specifically along the crack in the slab.

## 3. Goals, Objectives, Tasks, and Subtasks

The goal is to implement corrective action activities at the site and on the adjoining sites to the west that will reduce risk and mitigate source areas impacted with petroleum, TCE and agricultural chemicals.

**Objective 1:** Address the water supply wells that have been impacted with TCE and provide a clean potable water source. There is one on-site well located northwest of the fertilizer building and three wells on the downgradient, adjoining sites that are impacted over the Minnesota Department of Health (MDH) Health Risk Limit (HRL). There are generally three options to address the impacted wells, all with varying degrees of cost and long-term monitoring. Below we present all three options.

**Task A:** Provide the occupants of the buildings in Blocks 5 and 7 bottled water for consumption. Relay through the MPCA and MDH that the water from the private wells is not safe to drink. Bottled water would be supplied until a corrective action has been implemented.

**Task B:** Secure the water supply well at the site. Do not use this well for potable water. Use the well as a testing point if screened appropriately.

**Task C (Option #1):** Connect Blocks 5 and 7 to the municipal water supply.

**Subtask 1:** Connect the nine buildings revealing TCE impacts above regulatory drinking water limits to the municipal water supply.

**Subtask 2:** Seal the private water wells on blocks 5 and 7 according to MDH requirements.

**Task D (Option #2):** Drill deeper water supply wells on Blocks 5 and 7 to replace impacted wells. If water is needed at the site, also drill a deeper water supply well at the site.

**Subtask 1:** At this time, three private water supply wells are impacted downgradient of the site. Drill three new wells to a minimum depth of 80 feet (depth of surrounding municipal wells).

**Subtask 2:** Drill one deep water supply well at the site, if necessary.

**Subtask 3:** Seal the impacted water supply wells according to MDH requirements.

**Task E (Option #3):** Install a granulated activated carbon (GAC) system at the three buildings where the water wells are impacted. Secure the on-site well so that it cannot be used as a potable water source.

**Subtask 1:** Install a GAC system at all three buildings.

**Subtask 2:** Provide testing on the effectiveness of the GAC system and adjust as necessary.

**Subtask 3:** Long-term monitoring and maintenance on the system is necessary on a monthly and quarterly basis.

**Objective 1 Timeline:** Tasks A and B are immediate.  
Task C: Approximately one year or greater to connect the buildings to the municipal water supply.  
Task D: Approximately 2-3 months to install new water supply wells and seal the old wells.  
Task E: Approximately 2-3 months to install the GAC systems. Long-term monitoring and maintenance will continue for several years.

**Objective 1 Deliverables:** A clean water supply for the site and downgradient buildings in Blocks 5 and 7.

**Objective 2:** Soil vapors, specifically TCE, are elevated in a sub-slab soil vapor sample above 33X Residential ISV of 70  $\mu\text{g}/\text{m}^3$  in at least one building (assumed residential) occupied by a pregnant person. The result is below the 33X Residential EISV of 210  $\mu\text{g}/\text{m}^3$ . Assuming the attenuation factor is valid, active mitigation is necessary. Install an active sub-slab depressurization (SSD) system according to MPCA Guidance Document c-rem3-06.

**Task A:** Conduct pre-mitigation diagnostic testing in the affected building on Block 7. Information should be recorded on Attachment A – Pre-Mitigation Diagnostic Testing Checklist.

**Subtask 1:** Complete items 1 through 22 of the pre-mitigation diagnostic testing.

**Subtask 2:** Conduct SSD pilot test to determine design criteria.

**Subtask 3:** Prepare a Response Action Plan (RAP) and Pilot Test Implementation Report.

**Task B:** Install an active mitigation system and record the information on Attachment B – Active System Installation Checklist.

**Subtask 1:** Complete procedures 1 through 19 of the active system installation guidance and follow the RAP.

**Task C:** Conduct post-mitigation diagnostic testing and record the information on Attachment C – Post-Mitigation Diagnostic Testing Checklist.

**Subtask 1:** Complete procedures 1 through 7 of the diagnostic testing checklist.

**Subtask 2:** Modify or adjust the system as appropriate.

**Task D:** Complete post-mitigation confirmation sampling following procedures 1 through 10 of MPCA Guidance Document c-rem3-06.

**Subtask 1:** The sampling consists of collecting concurrent sub-slab, indoor air and ambient outside air samples and collecting follow up pressure field extension (PFE) diagnostic testing. Conduct the testing after one week of installation and within 30 days. Complete Attachment D – Post-Mitigation Confirmation Sampling Checklist.

**Subtask 2:** Prepare a Response Action Plan Implementation Report.

**Objective 2 Timeline:** Task A: 45 days  
Task B: 30 days  
Task C: 2 weeks  
Task D: 45 days

**Objective 2 Deliverables:** RAP, Pilot Test Implementation Report; MPCA Attachments A through D; and RAP Implementation Report.



**Objective 3:** Soil vapors, specifically TCE, are elevated above 33X Industrial ISV of 230 µg/m<sup>3</sup> below the maintenance garage. The highest concentration was 21,000 µg/m<sup>3</sup> on the north side of the garage. The source of the TCE appears to be from the north end of the garage. Prepare and submit a Work Plan and RAP for remediation of TCE impacts below the garage (source removal).

**Task A:** Prepare a Sub-Slab Depressurization System (SSDS) Work Plan to determine whether a remedy involving SSDS will be technically feasible at the site. The SSDS Work Plan would include the following subtasks.

**Subtask A:** The SSDS will include the installation of lateral collection pipes and risers to allow vapor to vent above the roof line. The proposed SSDS will incorporate 4-inch perforated polyethylene collection piping placed in four trenches cut in the maintenance garage floor. The piping would be placed beneath the ground level slab-on-grade floor. The collection piping will contain 1/2-inch diameter perforation holes cut at 90-degree angles around the pipe at various intervals. The piping would be placed within 6-inches of coarse aggregate to facilitate air movement through the sub-slab soils. A geotextile fabric may be necessary at the base of each pipe section to avoid clogging of the perforations.

**Subtask B:** The 4-inch collection pipes will be connected to 6-inch solid polyethylene riser piping, that will then be routed horizontally to a 6-inch polyethylene header line that connects to the centralized blower unit located inside the building. The blower unit will be placed in a sound-dampening enclosure. The effluent will be discharged through a 6-inch polyethylene pipe that runs vertically from the blower unit to the roof. Each depressurization trench will be individually controlled for flow by an independent valve that will allow for system balancing. The installation and continuous operation of the SSDS will prevent sub-slab soil vapors from migrating into the site building and remediate the source area by the creation of a negative pressure field of at least -5 Pascals (Pa) beneath the buildings floor. The SSDS will reduce sub-slab soil vapor concentrations over time and provide long-term mass removal to reduce the vapor plume present on the site.

**Subtask C:** Sub-slab monitoring points will be installed during the vapor mitigation system construction using permanent style Vapor Pin™ monitoring points. The installation of Sub-slab monitoring points will allow the measurement of the pressure field, and the collection of analytical samples.

**Subtask D:** Collect sub-slab soil vapor samples in a manner compliant with MPCA best management practices, which specify that a minimum of two rounds of sampling be conducted: one during the heating season, which is defined as November 1 through March 31, and one during the cooling season, which is defined as April 1 through October 31. Samples will be analyzed for VOC by EPA method TO-15.

**Subtask E:** Collect indoor-air and outside ambient air samples to correspond with the sub-slab soil vapor samples. Indoor air samples will also be analyzed for VOC by EPA method TO-15.

**Objective 3 Timeline:** 90 Days

**Objective 3 Deliverables:** SSDS Work Plan and Response Action Plan; SSDS RAP Implementation Report.

**Objective 4:** Surface soils north of the fertilizer building, north of the maintenance garage building and below the existing used oil AST are visibly stained. Excavate impacted surface soils based on results from the remedial investigation.

**Task A:** If necessary, delineate the extent of contaminated surface soil after the site investigation. The sampling locations will be placed on a 20-foot grid where contaminated surface soil has been identified.

**Task B:** Prepare a Corrective Action Plan (CAP) to excavate soils for approval by the MPCA.

**Task C:** Excavate the upper two feet of soil that is not covered by an impervious surface where the soil is visibly contaminated; field headspace screening with a PID indicates levels of 10 ppm or greater; or where petroleum saturated soil exists (as determined by the petroleum sheen test).

**Subtask 1:** Arrange disposal of the impacted soils at an MPCA-permitted landfill. Submit a waste profile with previous analytical results. Plan to direct haul the material to the landfill.

**Subtask 2:** Backfill the excavation with clean fill.

**Subtask 3:** Document the removal activities and disposal. Confirmation soil samples are not necessary as the extent has already been defined.

**Objective 4 Timeline:** Task A: 15-30 days (if necessary)  
Task B: 1 week  
Task C: 2 weeks

**Objective 4 Deliverables:** Surficial Soil Excavation Report, addendum to the Remedial Investigation Report submitted as part of the sampling plan scenario.

**Objective 5:** Elevated levels of fertilizer and pesticides have been found in the gravel around the scale. In addition, elevated levels of fertilizer and pesticides have been found around the fertilizer building slab, specifically along the crack in the slab. Excavate soils and land apply at agronomic rates.

**Task A:** A RAP and CAP was previously submitted to the MDA for review and approval as part of the sampling plan. Review the CAP for proposed excavation activities.

**Task B:** Excavate soils on-site that have been impacted by fertilizer and pesticides. Stockpile the soils on-site and cover with polyethylene sheeting. Stockpiles should be approximately 100 cubic yards in size.

**Task C:** Further test the soils in accordance with MDA guidance and calculate the application rates.

**Task D:** Arrange land application activities with a local farmer. Arrange transportation and land spreading equipment. Provide topographic, plat and soil maps and where the soil will be applied.

**Task E:** Prepare a Proposal to Land Apply Soil from Agricultural Chemical Incidents form to be submitted to the MDA for approval of the land application.

**Task F:** Oversee the land application and document the amount and location of soil application. Prepare a Corrective Action Report.

**Objective 5 Timeline:** Task B: 1 week  
Task C: 2 weeks  
Task D: 30 days  
Task E: 2 weeks

**Objective 5 Deliverables:** Proposal to Land Apply Soil from Agricultural Chemical Incidents and a Corrective Action Report after the work is completed.

**Objective 6:** Convert the “waterfill area” supply well into a groundwater extraction point. This objective is proposed to localize the TCE groundwater plume to the site and away from the stream.

**Task A:** Perform a pump test on the water supply well. Utilize the permanent groundwater monitoring wells that were installed as part of the RI as test monitoring points.

**Task B:** Prepare a system design; the system would include an air stripper tower with GAC. The effluent would then be discharged to the stream. Submit the system design to the MPCA for review.

**Task C:** Prepare and submit an NPDES discharge permit to the MPCA to discharge the effluent to the stream. If an NPDES permit cannot be obtained, the effluent will need to be discharged to the municipal sanitary sewer system (permit required).

**Task D:** Install the approved system and prepare an as-built document.

**Task E:** Prepare an Operations & Maintenance (O&M) Plan. Long-term monitoring of the system and replacement of the GAC will be required. Sample the on-site and off-site monitoring wells for remedial effectiveness.

**Objective 6 Timeline:** Tasks A-C: 60 days  
Task D: 45 days  
Task E: Long-term monitoring

**Objective 5 Deliverables:** Pump and Treat System Design and O & M Plan.

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\*EXAMPLE ONLY - ADD OBJECTIVES/TASKS/CLASSIFICATIONS WHERE APPLICABLE

Project title: MPCA Remedial Proposal - Scenario A - Remediation Design/Remedial Action

| Project Budget  | 1. Personnel |                 |             |            |            |             |                  |                     | 2. Subcontracting   |  |                                 |                             |                  | 3. Equipment |                       |                  |                            |                             | 4. Other Expenses | Totals (Extended) |            |
|---|--------------|-----------------|-------------|------------|------------|-------------|------------------|---------------------|---------------------|--|---------------------------------|-----------------------------|------------------|--------------|-----------------------|------------------|----------------------------|-----------------------------|-------------------|-------------------|------------|
|   | Engineer 3   | Project Manager | Scientist 2 | Engineer 2 | Engineer 1 | Scientist 1 | Field Technician | GIS/CADD Specialist | Drilling Contractor | Excavation Contractor/Land Application | H2K/Carbon Air (GAC Contractor) | Radon Mitigation Contractor | Fixed Laboratory | PID 11.7     | Water Level Indicator | Submersible Pump | Vapor Pin Installation Kit | Pump/Slug Testing Equipment | Mileage           |                   |            |
|   | \$ 137.52    | \$ 137.52       | \$ 97.48    | \$ 97.48   | \$ 78.09   | \$ 78.09    | \$ 78.09         | \$ 78.09            |                     |  |                                 |                             |                  | \$ 138.00    | \$ 27.00              | \$ 52.00         | \$ 60.00                   | \$ 110.00                   | \$ 0.54           |                   |            |
| <b>Objective 1: Address the water supply wells that have been impacted with TCE and provide a clean potable water source.</b>                                       |              |                 |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task A  |              | 8               |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task B  |              |                 |             |            |            |             | 4                |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task C  | 4            | 4               |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task D  | 4            | 4               |             |            |            |             |                  |                     | XXX                 |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task E  | 40           | 10              |             |            | 40         |             | 10               |                     |                     | XXX                                    |                                 |                             | XXX              |              |                       |                  |                            |                             |                   | XXX               |            |
| <b>Total for Objective 1 Hrs</b>  | <b>48</b>    | <b>26</b>       | <b>0</b>    | <b>0</b>   | <b>40</b>  | <b>0</b>    | <b>14</b>        | <b>0</b>            | <b>XXX</b>          | <b>XXX</b>                             | <b>XXX</b>                      | <b>XXX</b>                  | <b>0</b>         | <b>0</b>     | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>                    | <b>XXX</b>        | <b>0</b>          |            |
| <b>Objective 2: Install an active sub-slab depressurization (SSD) system according to MPCA Guidance Document c-rem3-06.</b>   |              |                 |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task A  | 2            | 1               |             | 15         |            |             |                  | 3                   |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task B  | 2            | 1               |             | 25         |            |             |                  |                     |                     |  | XXX                             |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task C  | 2            | 1               |             | 8          |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task D  | 5            |                 |             | 10         | 8          |             |                  | 3                   |                     |  |                                 | XXX                         |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| <b>Total for Objective 2 Hrs</b>  | <b>11</b>    | <b>3</b>        | <b>0</b>    | <b>58</b>  | <b>8</b>   | <b>0</b>    | <b>0</b>         | <b>6</b>            | <b>XXX</b>          | <b>XXX</b>                             | <b>XXX</b>                      | <b>0</b>                    | <b>0</b>         | <b>0</b>     | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>                    | <b>XXX</b>        | <b>0</b>          |            |
| <b>Objective 3 - Prepare a Work Plan/RAP to install a SSD system to mitigate TCE impacts below the garage.</b>  |              |                 |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task A  | 8            | 5               | 40          | 40         | 40         |             |                  | 10                  |                     |  | XXX                             |                             | XXX              | XXX          |                       |                  |                            |                             | \$8.00            | XXX               |            |
| <b>Total for Objective 3 Hrs</b>  | <b>8</b>     | <b>5</b>        | <b>40</b>   | <b>40</b>  | <b>40</b>  | <b>0</b>    | <b>0</b>         | <b>10</b>           | <b>0</b>            | <b>0</b>                               | <b>0</b>                        | <b>0</b>                    | <b>XXX</b>       | <b>XXX</b>   | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>                    | <b>8</b>          | <b>0</b>          | <b>XXX</b> |
| <b>Objective 4 - Excavate impacted surface soils to based on results from the remedial investigation.</b>   |              |                 |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task A  |              |                 |             |            |            |             | 10               |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task B  |              |                 |             |            |            |             | 5                | 2                   |                     |  |                                 |                             |                  | XXX          |                       |                  |                            |                             |                   | XXX               |            |
| Task C  |              | 1               | 5           |            |            |             | 10               |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| <b>Total for Objective 4 Hrs</b>  | <b>0</b>     | <b>1</b>        | <b>5</b>    | <b>0</b>   | <b>0</b>   | <b>20</b>   | <b>15</b>        | <b>2</b>            | <b>0</b>            | <b>0</b>                               | <b>0</b>                        | <b>0</b>                    | <b>XXX</b>       | <b>0</b>     | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>                    | <b>0</b>          | <b>0</b>          |            |
| <b>Objective 5 - Elevated levels of fertilizer and pesticides have been found in the gravel around the scale. Excavate soils and land apply at agronomic rates.</b> |              |                 |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task A  |              | 1               |             |            |            |             |                  | 2                   |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task B  |              | 2               |             |            |            |             |                  | 16                  |                     | XXX                                    |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task C  |              |                 |             |            |            |             | 4                |                     |                     |  |                                 |                             | XXX              |              |                       |                  |                            |                             |                   | XXX               |            |
| Task D  |              | 2               | 16          |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task E  |              | 2               | 20          |            |            |             |                  | 5                   |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task F  |              | 2               | 20          |            |            |             |                  | 5                   |                     | XXX                                    |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| <b>Total for Objective 5 Hrs</b>  | <b>0</b>     | <b>9</b>        | <b>56</b>   | <b>0</b>   | <b>0</b>   | <b>22</b>   | <b>0</b>         | <b>10</b>           | <b>0</b>            | <b>XXX</b>                             | <b>0</b>                        | <b>0</b>                    | <b>XXX</b>       | <b>0</b>     | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>                    | <b>0</b>          | <b>0</b>          |            |
| <b>Objective 6 - Convert the "waterfill area" supply well into a groundwater pump and treat point.</b>  |              |                 |             |            |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task A  | 1            | 1               |             |            | 8          |             |                  |                     |                     |  |                                 |                             |                  |              | XXX                   | XXX              |                            |                             | XXX               | XXX               |            |
| Task B  | 10           | 1               |             | 25         |            |             |                  | 10                  |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task C  |              |                 |             | 8          |            |             |                  |                     |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| Task D  | 1            |                 |             | 10         | 40         |             |                  | 10                  |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   | XXX               |            |
| Task E  | 1            |                 |             | 10         | 20         |             |                  | 2                   |                     |  |                                 |                             |                  |              |                       |                  |                            |                             |                   |                   |            |
| <b>Total for Objective 6 Hrs</b>  | <b>13</b>    | <b>2</b>        | <b>0</b>    | <b>53</b>  | <b>68</b>  | <b>0</b>    | <b>0</b>         | <b>22</b>           | <b>0</b>            | <b>0</b>                               | <b>0</b>                        | <b>0</b>                    | <b>0</b>         | <b>0</b>     | <b>0</b>              | <b>0</b>         | <b>0</b>                   | <b>0</b>                    | <b>0</b>          | <b>0</b>          |            |
| <b>Total Project Hours</b>  | <b>80</b>    | <b>46</b>       | <b>101</b>  | <b>151</b> | <b>156</b> | <b>42</b>   | <b>29</b>        | <b>50</b>           | <b>XXX</b>          | <b>XXX</b>                             | <b>XXX</b>                      | <b>XXX</b>                  | <b>XXX</b>       | <b>XXX</b>   | <b>0</b>              | <b>0</b>         | <b>8</b>                   | <b>0</b>                    | <b>0</b>          | <b>0</b>          |            |



## Event Details (cont.)

|   |                |                     |             |
|---|----------------|---------------------|-------------|
| <b>Event ID</b>                         | <b>Format</b>  | <b>Type</b>         | <b>Page</b> |
| R3201-2000008034                        | Sell           | RFx                 | 3           |
| <b>Event Round</b>                      | <b>Version</b> |                     |             |
| 1                                       | 1              |                     |             |
| <b>Event Name</b>                       |                |                     |             |
| MPCA PT RFP Remediation Master Contract |                |                     |             |
| <b>Start Time</b>                       |                | <b>Finish Time</b>  |             |
| 02/28/2018 08:00:00                     |                | 04/11/2018 14:00:00 |             |

**Event Currency:** US Dollar  
**Bids allowed in other currency:** No

In order to participate in this event YOU MUST BE REGISTERED as a vendor and have ACCEPTED the event electronically.


### PUBLIC EVENT DETAILS

**Submit To:** Pollution Control Agency  
520 LAFAYETTE RD N  
ST PAUL MN 55155-4194  
United States

**Contact:** Heining, Mary  
**Phone:** 651/757-2418

**Email:** Contracts.pca@state.mn.us

## Bidder Information

|  |                   |                   |  |
|--|-------------------|-------------------|--|
| <b>Firm Name:</b> Wenck Associates, Inc.         |                   |                   |  |
| <b>Name:</b>                                     | Timothy O. Donlin | <b>Signature:</b> |  |
| <b>Date:</b>                                     | 04/02/2018        |                   |  |
| <b>Phone #:</b>                                  | 763-479-4200      | <b>Fax #:</b>     | 763-479-4242   |
| <b>Street Address:</b> 1800 Pioneer Creek Center |                   |                   |  |
| <b>City &amp; State:</b>                         | Maple Plain, MN   | <b>Zip Code:</b>  | 55359  |
| <b>Email:</b>                                    | wenckmp@wenck.com |                   |  |



## REQUEST FOR PROPOSAL (RFP) ADDENDUM

Addendum No.: 1

Date of Addendum: March 19, 2018

Due Date, Time: April 11, 2018, 2:00 PM

Title: MPCA PT RFP – REMEDIATION MASTER

### SCOPE OF ADDENDUM

The Request For Proposal (RFP) is revised as follows with additions underlined, and deletions are ~~struck out~~:

**Revision 1. RFP Section 2: Project Goals, Page 3, is amended as follows:**

The total amount of money available for work under this Master Contract is approximately ~~\$120,000,000.00 (One Hundred Twenty Million Dollars)~~ \$420,000,000.00 (Four Hundred Twenty Million Dollars) for five years between all Master Contracts issued under this RFP. No payments will be made except for work authorized by a Work Order that is issued from the State. No minimum payment is guaranteed by the State.

**Revision 2. RFP Attachment C. Sample Contract, Page 2, Clause 4.1 Consideration. is amended as follows:**

**4.1 Consideration.** The State will pay for all services satisfactorily performed by the Contractor for all Work Order Contracts issued under this Master Contract. The total compensation of all Work Orders may not exceed ~~\$120,000,000.00 (One Hundred Twenty Million Dollars)~~ \$420,000,000.00 (Four Hundred Twenty Million Dollars) for five (5) years between all Master Contracts

**Revision 3. RFP Section 7. Proposal Content, Category A: Petroleum, Superfund, MDA, and Closed Landfill Program Environmental Services, A.3, Page 31, is amended as follows:**

Provide a detailed description of the company's experience as it relates to the scope of services outlined in this RFP; specifically, describe the company's experience with each of the bullets listed in **Section 4.3** of this RFP. The Proposal shall contain the following additional details specific to Category A services:

- A summary of Proposer's experience with agricultural chemical investigation and cleanups.
- A list of remediation technologies with which the Proposer has experience.
- Provide a detailed description of the company's experience as it relates to the scope of services outlined in this RFP for Category A.

**Revision 4. RFP Section 3: Scope of Services, Page 3, is amended as follows:**

The Contractor shall submit a separate proposal for each Category of Service for which the Contractor would like to be considered. Proposals will be evaluated individually for each Category of Service for which they were submitted. Category B is a subset of Category A. If the Contractor submits Proposals for both Category A and Category B, Category A will be evaluated first for qualification. If the Contractor is not approved for Category A, they will then be evaluated for Category B. Category C will be evaluated individually. Contractors can submit Proposals for all three Categories if desired.

Should a Contractor be approved and selected for more than one Categories, the Contractor will receive only one Master Contract containing all the approved and selected Categories.

Joint ventures and teaming among groups of Contractors is not allowed.

**Revision 5. RFP, Attachment C Sample Contract, Clause 38. C. Additional Insurance Conditions, Bullet #5, Page 21, is amended as follows:**

- Contractor’s policy(ies) shall include legal defense fees in addition to its liability policy limits, with the exception of B-4 Professional/Technical, Errors and Omissions, and/or Miscellaneous Liability Insurance above;

**Revision 6. RFP, Section 4. Personnel Classifications and Qualifications, Category C: Closed Landfill Program, Project Manager Qualifications, Second Bullet, Page 23, is amended as follows:**

- Minimum of three years experience working with landfill, investigation and closure. Minnesota Guidance and Policy with the Superfund/ Petroleum programs.  
<https://www.pca.state.mn.us/waste/cleanup-guidance>

**Revision 7. RFP, Section 6. Supplies and Equipment Pricing, EQUIPMENT RATES, Pages 28 and 29, and RFP, Attachment C, Sample Contract, EQUIPMENT RATES, Pages 5,6,7, is amended as follows:**

| Equipment                                       | Cost (per day)        |
|---|-----------------------|
| Turbidity Meter                                 | \$52.00               |
| Oxidation-reduction potential (ORP) Meter       | \$39.00               |
| <del>Hydrolab Quanta</del>                      | <del>\$80.00</del>    |
| Dissolved Oxygen Meter                          | \$46.00               |
| Temperature, pH, conductivity, ORP meter        | \$68.00               |
| Temperature, pH, conductivity                   | \$35.00               |
| <del>YSI Multi Meter w/ Flow Cell</del>         | <del>\$117.00</del>   |
| Flow Cell                                       | \$77.00               |
| Water Quality Meter (6 parameters)              | \$102.00              |
| <del>2" Trash Pump</del>                        | <del>\$18975.00</del> |
| Bladder pump                                    | \$118.00              |
| Submersible Pump                                | \$52.00               |
| Peristaltic Pump                                | \$43.00               |
| Diaphragm Pump                                  | \$53.00               |
| Mechanical Pump Puller                          | \$44.00               |
| Water Level Indicator                           | \$27.00               |
| Hydrocarbon/Water Interface Probe               | \$55.00               |
| Pump/Slug Testing Equipment                     | \$110.00              |
| Manual direct-push probe equip.                 | \$165.00              |
| X-ray Fluorescent (XRF) for Soil and Lead Paint | \$468.00              |

|  |                |
|--|----------------|
| Nuclear Density Gauge                    | \$69.00        |
| Multi Gas Meter (O2/CO/LEL/Methane)      | \$123.00       |
| O2/Combustible Gas Detector              | \$110.00       |
| LEL/O2/CO2 Gas Meter                     | \$66.00        |
| LEL/O2Gas Meter                          | \$55.00        |
| Explosimeter                             | \$52.00        |
| Photoionization Detector (PID) 10.6      | \$99.00        |
| Photoionization Detector (PID) 11.7      | \$138.00       |
| Flame Ionization Detector (OVA)          | \$135.00       |
| Velometer / Anemometer                   | \$34.00        |
| Micro Manometer                          | \$64.00        |
| Sound Level Meter                        | \$53.00        |
| Dust Meter                               | \$70.00        |
| Air Compressor                           | \$54.00        |
| Metal/Cable Detector                     | \$47.00        |
| Generator                                | \$65.00        |
| Sump Pump                                | \$33.00        |
| Pressure Washer                          | \$69.00        |
| Magnetometer                             | \$151.00       |
| Coreing Machine with Drill Bits          | \$110.00       |
| Surveying Equipment - Rotary Laser       | \$104.00       |
| GPS (Submeter)                           | \$122.00       |
| Laser Level/Lenker Rod                   | \$127.00       |
| Ground Penetrating Radar (GPR)           | \$426.00       |
| EM-31 Ground Conductivity Meter          | \$440.00       |
| EM-61 Ground Conductivity Meter          | \$688.00       |
| 55 gal Drums                             | \$70.00        |
| Sub-Slab Soil Gas Sampling Point Insert  | \$88.00        |
| Screen for Soil Gas Monitoring Points    | \$51.00        |
| Vapor Pin Installation Kit (per point)   | \$60.00        |
| Lumex Mercury Monitoring                 | \$187.00       |
| Mercury Analyzer                         | \$179.00       |
| <u>Canoe</u>                             | <u>\$15.68</u> |
| <u>Boat (includes motor and trailer)</u> | <u>\$58.24</u> |
| <u>ATV (Hourly Rate)</u>                 | <u>\$16.80</u> |

**Revision 8. RFP, Section 7. Proposal Content, Category B. Petroleum Only Remediation Environmental Services B.5., Scenario 1: Petroleum Only Environmental Services, Page 39, is amended as follows:**

**5. Scenario ~~1~~B: Petroleum Only Environmental Services**

**Scenario ~~1~~B:**

**Revision 9. RFP, Section 6. Supplies and Equipment Pricing, Item cc., Page 27 and RFP, Attachment C, Sample Contract, Clause 8, Page 5, is amended as follows:**

cc. Tubing less than \$100.00

**Revision 10. RFP, Section 7. Proposal Content, 5. Scenario A., Page 33, is amended as follows:**

The property owner conducted a limited investigation consisting of several push probes throughout the facility and adjacent property. This investigation identified chlorinated ethenes (most notably trichloroethylene [TCE]) and agricultural chemicals (nitrogen, dicamba, metolachlor, metribuzin, pendimethalin, and triclopyr) in soils and groundwater above agency-regulated cleanup goals. General geology was noted to generally consist of coarse grained sands with thin lenses of silt and clay. The investigation encountered shallow groundwater approximately 6-10 feet bgs, with an assumed flow direction heading into town. All groundwater samples (blue GW samples) were collected at 30 feet for domestic wells, and 15 feet for investigation borings. The investigation did not evaluate the stream.

A single round of vapor points were also advanced off-site as part of the property owner's investigation, with some of the detections exceeding the 33X ISV for TCE (Figure 1). Vapor samples (orange vapor samples) were collected above the water table. MPCA is aware there is a pregnant person at the property with the sub-slab point. A passive soil-gas sample collected in the vehicle/equipment maintenance garage was several orders of magnitude above screening criteria; however, additional characterization nor remediation occurred in the building by the property owner.

**Revision 11. RFP, Section 7., Proposal Content, Category A.; Scenario A, 2<sup>nd</sup> Paragraph, Page 32, is amended as follows:**


The site topography is mostly flat, however the elevation does dip downward toward a small stream running through the northern portion of the property. This stream continues into the town which is located in the west adjoining property (see Figure 1). Older portions of the town (situated closer to the former ag-chem plant) are on private well drinking water (blocks 3, 5, and 7) that are 30 feet deep. Newer portions of the town (farther from the former plant) are on community water from the local municipality (blocks 1, 2, 4, and 6).

**Revision 12. RFP, Section 7., Proposal Content, Category B. #5. Scenario 1: Petroleum Only Environmental Services, 5<sup>th</sup> Paragraph, Page 39, is amended as follows:**

Municipal services are available in the area; however, the lakeside homes are all on private wells. The wells are 80 feet deep. The fueling station is hooked up to municipal water and other utilities at the site include storm sewer, sanitary sewer, and water that run along main street.



**This addendum shall become part of the RFP and MUST be returned with the RFP Response.**

RESPONDER NAME:   
Timothy O. Donlin  
Wenck Associates, Inc.

TITLE: CFO

DATE: 04/02/2018

**ATTACHMENT D**

**STATE OF MINNESOTA  
AFFIDAVIT OF NONCOLLUSION**

I swear (or affirm) under the penalty of perjury:

1. That I am the Responder (if the Responder is an individual), a partner in the company (if the Responder is a partnership), or an officer or employee of the responding corporation having authority to sign on its behalf (if the Responder is a corporation);
2. That the attached proposal submitted in response to the Remediation Master Contract Request for Proposals has been arrived at by the Responder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with, any other Responder of materials, supplies, equipment or services described in the Request for Proposal, designed to limit fair and open competition;
3. That the contents of the proposal have not been communicated by the Responder or its employees or agents to any person not an employee or agent of the Responder and will not be communicated to any such persons prior to the official opening of the proposals; and
4. That I am fully informed regarding the accuracy of the statements made in this affidavit.

Responder's Firm Name: Wenck Associates, Inc.

Authorized Representative (Please Print) Timothy O. Donlin

Authorized Signature: \_\_\_\_\_  
*(Handwritten signature of Timothy O. Donlin)*

Date: 04/02/2018

Subscribed and sworn to me this 2<sup>ND</sup> day of APRIL, 2018

Notary Public Signature: *Luann Raymond*

My commission expires: 1/31/22



**ATTACHMENT E**  
**STATE OF MINNESOTA – WORKFORCE CERTIFICATE INFORMATION**  
Required by state law for ALL bids or proposals that could exceed \$100,000

Complete this form and return it with your bid or proposal. The State of Minnesota is under no obligation to delay proceeding with a contract until a company becomes compliant with the Workforce Certification requirements in Minn. Stat. §363A.36.

**BOX A – MINNESOTA COMPANIES** that have employed more than 40 full-time employees within this state on any single working day during the previous 12 months, check one option below:

- Attached is our current Workforce Certificate issued by the Minnesota Department of Human Rights (MDHR).
- Attached is confirmation that MDHR received our application for a Minnesota Workforce Certificate on \_\_\_\_\_ (date).


**BOX B – NON-MINNESOTA COMPANIES** that have employed more than 40 full-time employees on a single working day during the previous 12 months in the state where it has its primary place of business, check one option below:

- Attached is our current Workforce Certificate issued by MDHR.
- We certify we are in compliance with federal affirmative action requirements. Upon notification of contract award, you must send your federal or municipal certificate to MDHR at [compliance.MDHR@state.mn.us](mailto:compliance.MDHR@state.mn.us). If you are unable to send either certificate, MDHR may contact you to request evidence of federal compliance. The inability to provide sufficient documentation may prohibit contract execution.

**BOX C – EXEMPT COMPANIES** that have not employed more than 40 full-time employees on a single working day in any state during the previous 12 months, check option below if applicable:

- We attest we are exempt. If our company is awarded a contract, we will submit to MDHR within 5 business days after the contract is fully signed, the names of our employees during the previous 12 months, the date of separation, if applicable, and the state in which the persons were employed. Send to [compliance.MDHR@state.mn.us](mailto:compliance.MDHR@state.mn.us).

By signing this statement, you certify that the information provided is accurate and that you are authorized to sign on behalf of your company.

Name of Company: Wenck Associates, Inc. Date: 04/02/2018  
Authorized Signature:  Telephone number: 763-479-4200  
Printed Name: Timothy O. Donlin Title: CFO

**For assistance with this form, contact:**

Minnesota Department of Human Rights, Compliance Services

Web: <http://mn.gov/mdhr/>  
Email: [compliance.mdhr@state.mn.us](mailto:compliance.mdhr@state.mn.us)

TC Metro: 651-539-1095

Toll Free: 800-657-3704  
TTY: 651-296-1283

# CERTIFICATE OF COMPLIANCE

**WENCK ASSOCIATES, INC. is hereby certified as a contractor by the Minnesota Department of Human Rights. This certificate is valid from 5/8/2014 to 5/7/2018.**

This certification is subject to revocation or suspension prior to its expiration if the department issues a finding of noncompliance or if your organization fails to make a good faith effort to implement its affirmative action plan.

**Minnesota Department of Human Rights**

**FOR THE DEPARTMENT BY:**

A handwritten signature in black ink, appearing to read "Kevin M. Lindsey". The signature is written in a cursive style with a large initial "K" and a long, sweeping underline.

Kevin M. Lindsey, Commissioner

# ATTACHMENT F

## CERTIFICATION REGARDING LOBBYING For State of Minnesota Contracts and Grants over \$100,000

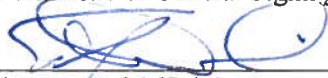
The undersigned certifies, to the best of his or her knowledge and belief that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, A Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Wenck Associates, Inc.  
Organization Name

Timothy O. Donlin  
Name and Title of Official Signing for Organization

By:   
Signature of Official

04/02/2018  
Date

## ATTACHMENT G

### State of Minnesota – Equal Pay Certificate

If your response could be in excess of \$500,000, please complete and submit this form with your submission. **It is your sole responsibility to provide the information requested and when necessary to obtain an Equal Pay Certificate (Equal Pay Certificate) from the Minnesota Department of Human Rights (MDHR) prior to contract execution. You must supply this document with your submission.** Please contact MDHR with questions at: 651-539-1095 (metro), 1-800-657-3704 (toll free), 711 or 1-800-627-3529 (MN Relay) or at [compliance.MDHR@state.mn.us](mailto:compliance.MDHR@state.mn.us).

**Option A** – If you have employed 40 or more full-time employees on any single working day during the previous 12 months in Minnesota or the state where you have your primary place of business, please check the applicable box below:


- Attached is our current MDHR Equal Pay Certificate.
- Attached is MDHR's confirmation of our Equal Pay Certificate application.

**Option B** – If you have not employed 40 or more full-time employees on any single working day during the previous 12 months in Minnesota or the state where you have your primary place of business, please check the box below.

- We are exempt. We agree that if we are selected we will submit to MDHR within five (5) business days of final contract execution, the names of our employees during the previous 12 months, date of separation if applicable, and the state in which the persons were employed. Documentation should be sent to [compliance.MDHR@state.mn.us](mailto:compliance.MDHR@state.mn.us).

The State of Minnesota reserves the right to request additional information from you. **If you are unable to check any of the preceding boxes, please contact MDHR to avoid a determination that a contract with your organization cannot be executed.**

Your signature certifies that you are authorized to make the representations, the information provided is accurate, the State of Minnesota can rely upon the information provided, and the State of Minnesota may take action to suspend or revoke any agreement with you for any false information provided.

|   |                            |            |
|---|----------------------------|------------|
|  | Timothy O. Donlin          | CFO        |
| Authorized Signature  | Printed Name               | Title      |
| Wenck Associates  | 3319019/41-1520095         | 04/02/2018 |
| Organization  | MN/FED Tax ID#             | Date       |
| MDHR  |                            |            |
| Issuing Entity  | Project # or Lease Address |            |





Minnesota Department of  
**HUMAN RIGHTS**

## **CERTIFICATE OF** **EQUAL PAY**

**WENCK ASSOCIATES INC is hereby awarded a Certificate of Equal Pay by the Minnesota Department of Human Rights. This certificate is valid from 08/05/2014 to 08/04/2018.**

This certification is subject to revocation or suspension prior to its expiration if the Department issues a finding of noncompliance.

**Minnesota Department of Human Rights**

**FOR THE DEPARTMENT BY:**

A handwritten signature in black ink, appearing to read "Kevin M. Lindsey".

Kevin M. Lindsey, Commissioner

AN EQUAL OPPORTUNITY EMPLOYER

**ATTACHMENT H  
STATE OF MINNESOTA  
RESIDENT VENDOR FORM**

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In accordance with Laws of Minnesota 2013, Chapter 142, Article 3, Section 16, amending Minn. Stat. § 16C.02, subd. 13, a "Resident Vendor" means a person, firm, or corporation that:

- (1) is authorized to conduct business in the state of Minnesota on the date a solicitation for a contract is first advertised or announced. It includes a foreign corporation duly authorized to engage in business in Minnesota;
  - (2) has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the bid or proposal for which any preference is sought;
  - (3) has a business address in the state; and
  - (4) has affirmatively claimed that status in the bid or proposal submission.
- 

To receive recognition as a Minnesota Resident Vendor ("Resident Vendor"), your company must meet each element of the statutory definition above by the solicitation opening date and time. If you wish to affirmatively claim Resident Vendor status, you should do so by submitting this form with your bid or proposal.


Resident Vendor status may be considered for purposes of resolving tied low bids or the application of a reciprocal preference.

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**I HEREBY CERTIFY THAT THE COMPANY LISTED BELOW:**

1. Is authorized to conduct business in the State of Minnesota on the date a solicitation for a contract is first advertised or announced. *(This includes a foreign corporation duly authorized to engage in business in Minnesota.)*  
 Yes \_\_\_ No (must check yes or no)
2. Has paid unemployment taxes or income taxes in the State of Minnesota during the 12 calendar months immediately preceding submission of the bid or proposal for which any preference is sought.  
 Yes \_\_\_ No (must check yes or no)
3. Has a business address in the State of Minnesota.  
 Yes \_\_\_ No (must check yes or no)
4. Agrees to submit documentation, if requested, as part of the bid or proposal process, to verify compliance with the above statutory requirements.  
 Yes \_\_\_ No (must check yes or no)

**BY SIGNING BELOW**, you are certifying your compliance with the requirements set forth herein and claiming Resident Vendor status in your bid or proposal submission.

Name of Company: Wenck Associates, Inc. Date: 04/02/2018  
Authorized Signature:  Telephone: 763-479-4200  
Printed Name: Timothy O. Donlin Title: CFO

---

**IF YOU ARE CLAIMING RESIDENT VENDOR STATUS, SIGN AND RETURN THIS FORM WITH YOUR BID OR PROPOSAL SUBMISSION.**

**Not Applicable**

## ATTACHMENT I

### STATE OF MINNESOTA VETERAN-OWNED PREFERENCE FORM

Unless a greater preference is applicable and allowed by law, in accordance with Minn. Stat. §16C.16, subd. 6a, the state will award a 6% preference on state procurement to certified small businesses that are majority owned and operated by veterans.

Veteran-Owned Preference Requirements - See Minn. Stat. § 16C.19(d):

- 1) The business has been certified by the Office of Equity in Procurement as being a veteran-owned or service-disabled veteran-owned small business.

**or**

- 2) The principal place of business is in Minnesota AND the United States Department of Veterans Affairs verifies the business as being a veteran-owned or service-disabled veteran-owned small business under Public Law 109-461 and Code of Federal Regulations, title 38, part 74 (Supported By Documentation).

---

Statutory requirements and appropriate documentation must be met **by the solicitation response due date and time** to be awarded the veteran-owned preference.

---

### Claim the Preference

**By signing below I confirm that:**

My company is claiming the veteran-owned preference afforded by Minn. Stat. § 16C.16, subd. 6a. By making this claim, I verify that:

- The business has been certified by the Office of Equity in Procurement as being a veteran-owned or service-disabled veteran-owned small business.
- or**
- My company's principal place of business is in Minnesota **and** the United States Department of Veteran's Affairs verifies my company as being a veteran-owned or service-disabled veteran-owned small business (Supported By Attached Documentation)

Name of Company: \_\_\_\_\_ Date: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_ Telephone: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

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**Attach documentation, sign, and return this form with your solicitation response to claim the veteran-owned preference.**