

Project Title: Category C, Scenario C – Closed Landfill Environmental Services: Work Plan for Landfill Site Evaluation

1. Project Summary:

Terracon Consultants, Inc. (Terracon) prepared this Work Plan (Work Plan) to assist the Closed Landfill Program in seeking a remedy for the closed landfill site described in the RFP. The landfill has operated as an unlined municipal solid waste (MSW) landfill since 1965, permitted by the Minnesota Pollution Control Agency (MPCA) in 1972 and ceased operations in 1983. Several potential issues associated with the landfill have been identified and include contamination of groundwater from landfill leachate, possible migration of landfill gas and the possibility of continued impacts due to inadequate landfill cover/cap and slope.

Terracon's proposed Work Plan includes:

- Review historic environmental investigation information/data.
- Further characterization of the site geology and hydrogeology.
- Delineation of the type and horizontal and vertical extent of groundwater impacts.
- Delineation of landfill gas migration and impacts.
- Evaluation of potential risks and receptors.
- Identification and review of potential corrective actions necessary to mitigate the environmental risks based on the findings of the site evaluation and Remedial Investigation.
- Recommendation of a proposed corrective action(s) for design and implementation.

2. Statement of Problems, Opportunities, and Existing Conditions

Statement of Problems

Terracon has prepared this Work Plan in response to the MPCA's request to conduct additional Remedial Investigation (RI), and identify a recommended approach to remediation, related to potential groundwater and landfill gas impacts from the previous operations of a closed unlined MSW landfill. The Work Plan will address the following problems:

- Known 30-acre closed MSW landfill with a cover system with observed settlement and intermittent water ponding, little to no slope for surface water drainage and possible poor and/or permeable cover materials.
- The subsurface environment has currently been described as glacial clay-till deposits with interbedded sand layers. However, this is based on information from limited remedial investigation to date.
- The landfill's current environmental monitoring system includes only three groundwater monitoring wells with limited historic monitoring data.
- Groundwater monitoring to date has identified groundwater impacts above established health risk standards for volatile organic compounds (VOCs) and metals.
- Passive landfill gas (LFG) vents were constructed within the waste disposal area, however no LFG data is readily available concerning LFG generation, concentrations or flow. No investigation of potential off-site migration has been conducted at this time, however, signs of migration have been identified (i.e. distressed corn crop on neighboring farm land).
- Residential developments exist 150 feet and 0.5-miles, respectively, from the western and southern landfill boundary, with a proposed development immediately south of the landfill. Municipal sewer and water are provided within the existing residential development areas although connection to these services is not required and some residences continue to use well water, at least for irrigation purposes. The City has received complaints from residents south of the landfill of "strange odors" emanating from their irrigation wells.
- A farmstead with 75 head of cattle and a private water supply well exists approximately 0.25-miles east of the landfill.

The farmer that grows corn in the field immediately east of the landfill claims the crop grows poorly.

Statement of Opportunities

Terracon has identified the following opportunities to further investigate potential risks to human health and the environment at the landfill site and surrounding area and identify potential remedial actions, if necessary:

- Collection of data to assess current hydrogeologic and geologic conditions to make more informed decisions about the potential threat to human health and the environment.
- Assessment of the current groundwater monitoring system along with expanding it to better define the type, horizontal and vertical extent of groundwater contamination and the potential threat to water supply wells in the area, especially the immediate threat to residents utilizing private water supply wells.
- Investigation of the potential migration of landfill gas beyond the landfill's property boundaries and the threat to human health and the environment (damage of nearby crops, migration into sub-surface structures and potential accumulation of explosive vapors).
- If landfill gas has been determined to migrate beyond landfill property boundaries, determine whether an immediate threat to receptors exists and implement mitigation immediately.
- Assessment of the current passive landfill gas venting system and its effectiveness in controlling the off-site migration of landfill gas. If determined to be ineffective, address the need for improvements to prevent off-site migration.
- Assessment of the conditions of the current cover to determine to what extent it prevents the infiltration of precipitation that could potentially lead to further contamination of the groundwater. If the cover system is improved, what effect could this have on reducing infiltration of precipitation and, therefore, further contamination of the groundwater.
- Based on the results of the remedial investigation, evaluate the need for response actions, evaluation of potential response actions and recommendation of the potential response action(s).

Statement of Existing Conditions

A preliminary investigation has identified some contaminants in groundwater, potential for LFG migration and poor landfill cap/cover associated with the historical operations of the landfill. The identified contamination appears to pose risk to receptors, but additional assessment is needed to fully assess the risks. The limited remedial investigation and previous environmental monitoring completed has identified elevated groundwater contaminants, some above health risk standards, for VOCs and metals. Complaints concerning "strange odors" associated with nearby residential irrigation wells along with claims of a distressed corn crop at an adjacent farm field may be indications of LFG migration and impacts.

General Assumptions

The following assumptions are made with regards to the site:

- The limited remedial investigation contains some information regarding the regional geology and hydrogeology of the area and site specific information related to the subsurface deposits.
- Documentation exists regarding the installation of the passive vents pertaining the depth of waste and types of waste encountered during the drilling and construction of the LFG vents.
- If not identified in the remedial investigation or monitoring information, it is assumed groundwater flow direction is to the south-southeast, toward the river with the river as a discharge point.
- The Site is relatively flat and level and given the nearby river the groundwater level is assumed to be no more than 18-20 feet below ground surface.
- Waste was placed using relatively shallow excavation and/or trench methods as disposal practices above the water table and, therefore waste is assumed to not have been placed in groundwater.
- Existing groundwater monitoring wells are constructed to code and still viable as monitoring and data points for the site (at least for depth to groundwater measurements).
- Monitoring information is available from previous data to determine the specific VOCs and metals of concern for risk evaluation. The contaminants of concern have been identified and other contaminants such as semi-volatile organic compounds, poly chlorinated biphenyls and perfluorocchemicals (PFCs) have been eliminated.
- An accurate topographic survey of the site including property boundaries, elevations, on-site roads/structures, locations of existing monitoring wells and elevations, and locations of landfill gas vent wells is available in compatible AutoCAD format.
- Access agreements are obtained to enter and work on the landfill and adjacent properties upon completion of and execution of proper access agreements.

- Assume the nature of the work may be disclosed in interviews with the neighboring property owners.
- Pertinent information and data is available from the limited remedial investigation and environmental monitoring to prepare a site specific Health and Safety Plan (HASP).

3. Goals, Objectives, Tasks, and Subtasks

Objective 1: Site Evaluation

The initial objective of the site evaluation is to:

- Better understand the history of the site/landfill.
- Estimate a waste boundary and depth of waste to calculate an approximate waste volume.
- Confirm previously identified groundwater contaminants.
- Evaluate potential of landfill gas migration.
- Characterize the current conditions of the landfill cap/cover.
- Identify potential receptors and evaluate the potential environmental and/or human health risk.
- Define any immediate threats to human health via groundwater contamination and/or migration of landfill gas.

Task A: Review of existing information

Subtask 1: Define the property history through review of available information from City, County, and MPCA data files for the landfill including waste types accepted, complaints, closure activities and identification of contaminants of concern and environmental risk associated with past landfill operations; i.e., groundwater impacts and LFG migration. Work to be completed under this subtask includes:

- Review of available site specific environmental reports (and any other reports), environmental monitoring data and other files, including landfill closure documentation.
- Gather and verify existing water quality analyses available from unused and or private water supply wells in the area.
- Collection and review of historic aerial photos and topographic maps pre- and post-1965.
- Conduct a water well survey via the Minnesota Department of Health (MDH) County Well Index and review area water well logs and construction information for geologic/hydrogeologic data and identification of any additional potential receptors.
- Contact the City, County and MPCA to obtain any records of historical complaints associated with the landfill operations, odor or vegetation issues.
- Review complaints and/or data collected regarding potential LFG testing within the residential area or area homes/basements.
- Obtain access agreements for entry onto the landfill property and adjacent properties necessary to conduct investigation and monitoring work.
- Prepare a site specific health and safety plan (HASP) for proposed field work.

Subtask 2: Conduct Initial Site Evaluation – This subtask includes a site visit and walk over with the collection of field data. Work to be completed under this subtask includes:

- Collection of depth to water levels from the existing groundwater monitoring wells installed around the landfill.
- Collection of groundwater samples from three existing monitoring wells (if viable) for laboratory analysis for VOCs and metals.
- Recording of LFG measurements from the current on-site vent wells for methane, hydrogen sulfide and oxygen using a portable multi-gas meter.
- Documentation of current condition of landfill cover material and cover vegetation by visual observations and conducting shallow borings to verify thickness and types of cover system soil layers.
- Conduct door to door well survey/interviews of surrounding properties to identify undocumented wells and usage (and/or verify connection to municipal utilities) and inquire about “strange odors” from irrigation wells.

- Interview local farmer to the east of the landfill and evaluate vegetation between landfill and adjacent field to assess statement “corn grows poorly”.
- Conduct gas monitoring in nearby residential basements (focusing on potential ports of entry) using portable multi-gas meter for methane, hydrogen sulfide (possible LFG migration) and oxygen.
- Determine if immediate threat is caused by migration of landfill gas to residential structures in nearby developments.

Objective 1 Timeline:

- 30-45 days for Historical Data collection and review, dependent on response from City, County and State regarding request for information.
- Five days to complete site field work and door to door survey/interviews and topographic survey.
- 45-60 days to review collected data, groundwater analysis, final topographic survey and prepare summary report.

Objective 1 Deliverables:

Terracon will prepare a site evaluation report providing a summary of:

- Brief history of landfill operations.
- Groundwater evaluation regarding specific VOCs that were detected in the monitoring system and concentrations and trends observed for specific compounds over time.
- Groundwater data and flow direction determination and groundwater contour map.
- Summary of LFG passive vents construction and results of LFG monitoring.
- Summary of existing cover system evaluation.
- Results of surveys and interviews conducted as part of the initial site evaluation.
- Prepare detailed work plan for remedial investigation to delineate the type, extent and magnitude of groundwater and LFG impacts to the area surrounding the closed landfill.

Objective 2: Remedial Investigation

The objective of the remedial investigation is to:

- Delineate the horizontal and vertical extent of groundwater contaminants.
- Define the extent of landfill gas migration.
- Assess potential environmental and/or human health risk.
- Determine the need for evaluation of remedial actions.

Task A: Remedial Investigation Field Actions

Subtask 1: Landfill Gas Investigation

- a) Gas probe investigation – advance soil probes approximately 50 feet from waste limits of the landfill at 250 foot intervals to collect soil gas samples at varying depths, based on previously defined depths of the landfill waste mass, in the field with multi-gas meter measuring for methane (CH₄), hydrogen sulfide (H₂S) and oxygen. Soil gas samples will be collected for laboratory analysis using Summa canisters - from probes that recorded high, as well as low, field measurement concentrations for laboratory analysis in an effort to calibrate field readings. Probes will be advanced and sampled at 2-4 foot intervals to the water table and analyzed using the multi-gas meter. A second ring will be advanced 100 feet from the waste limit in the direction(s) of elevated landfill gas concentrations detected until vertical and horizontal extent of LFG can be satisfactorily delineated and the risk of migration identified. The soil gas investigation will continue in this manner until the extent of landfill gas impacts is demarcated. Proposed soil gas probes are illustrated on **Figure 1**.

- b) Construct permanent LFG monitoring probes for regular monitoring around the landfill at spacing determined by results of the soil probe investigation and beyond the delineated line of migration between the landfill and the proposed developments and current agricultural fields to monitor until the need for LFG control and/or collection system can be determined. Given the unconsolidated deposits of sand layers interbedded in glacial clay till, construction of nested probes may be necessary if landfill gas migration is documented at various depths in the interbedded sand layers.

Subtask 2: Groundwater Investigation

The groundwater investigation will evaluate extent and magnitude of VOCs and metals within the water table aquifer down gradient of the Landfill. Groundwater data collected over the period of record and recent field investigation indicates flow direction is to the southeast. The existing monitoring wells will be incorporated into this investigation as well, with the monitoring well located northwest of the landfill presumed to be the up-gradient monitoring point.

The groundwater investigation will start with a series of push probes advanced perpendicular to the direction of groundwater flow approximately 100 feet, 250 feet and 500 feet southeast and east of the Landfill's waste limits. A total of 13 push probes are proposed for this investigation. Proposed push probe sampling locations are illustrated on **Figure 1**. Groundwater samples (grab samples) will be collected at each probe location in an effort to define the horizontal extent of groundwater impacts. In addition, push probes will be advanced below the water table to evaluate water quality at depth below the Landfill's waste limits.

One push probe will be advanced adjacent to the landfill waste limits to evaluate the vertical extent of groundwater impacts from VOCs and metals downgradient of the landfill with respect to groundwater flow direction. Three push probes are proposed to be placed approximately 100 feet south east of the initial probe (approximately 60-degree angle either side). Four push probes are proposed to be placed approximately 250 feet south east of the initial probe; one directly southeast and the other three probes placed on either side (approximately 60-degree angle either side). The additional probes are proposed to be advanced approximately 500 feet southeast and east of the initial probes. Probe locations are illustrated on **Figure 1**.

Soil Probes

Soil probes will be advanced using a truck-mounted or track-mounted drill rig. The borehole will be advanced using a dual-tube system, which allows for the inner sampling tool to be pushed through a larger outer diameter rod with a total penetration depth of 5 feet. Soil sampling will be conducted using a plastic soil-retention sleeve placed into a 3.25-inch outside-diameter by 5-foot-long sampling tool. After advancing the tooling, the sampler is removed from the borehole but the outer rod remains, keeping the borehole open. The soil sample will be retrieved inside the plastic sleeve for visual inspection. The process is then repeated on a continuous basis to the termination depths of the borings.

It is anticipated soil probes will be advanced to a depth of approximately 30-35 feet below ground surface continuously collecting soil samples. A field geologist/engineer will be on site to observe and document drilling and sampling operations, log the soil borings and collect samples for laboratory analysis.

Groundwater samples will be collected from each probe location from designated intervals and submitted to an off-site laboratory for analysis of VOCs and metals. A groundwater sample will

be collected from the water table interface and subsequent groundwater samples will be collected at a minimum of 5 foot intervals.

e.g Water table sample 18-25 feet below ground surface (bgs)
 Second sample 28-33 feet bgs
 Third sample 38-43 feet bgs

Since the subsurface consists of sand layers interbedded in glacial till, efforts will be made to collect groundwater samples from the water-bearing sand layers.

Upon completion of each soil probe the borehole will be abandoned with a high-solids bentonite slurry, placed via tremie method in one continuous operation to the surface. Borehole sealing will be conducted in accordance with the MDH water well code and copies of the borehole sealing records will be provided within the investigation report.

Groundwater Sampling

Water samples will be collected at the designated intervals by connecting a 0.75 inch inside diameter (ID) by five-foot long stainless steel well screen inserted into the dual tube sampler. Once soil sampling is complete to the desired depth; a well screen will be inserted into the dual-tube and then the outer tube retracted approximately five feet to expose the well screen. This will allow collection of a groundwater grab sample from that interval. Groundwater will be collected using a check valve connected to clean (new) polyethylene (PE) tubing. Water will be purged from the probe in order to obtain representative water samples from the zone of interest. Purge water removed from the probe will be discharged onto the ground and allowed to infiltrate. The water sample collected from the borehole will be filtered in the field through a 0.45 micron filter and decanted into laboratory preserved sample bottles for analysis for metals. Once all the water samples are collected from the specific probe location, tooling will be removed and decontaminated before reuse.

Each sample will be collected into laboratory-provided containers; personnel will record the sample number, date, time and location on each container label in permanent ink and place the filled containers in an ice-filled cooler for transport to the testing laboratory. Sample identification and requested laboratory analysis will be recorded on a chain-of-custody to accompany the samples to the laboratory. Samples will be delivered to MDH certified laboratory for analysis.

Monitoring Well Construction

Upon completion of the field work for the groundwater investigation and evaluation of the laboratory data it is assumed the vertical and horizontal extent of groundwater impacts will be delineated. Additional groundwater monitoring wells will be installed as necessary to monitor groundwater quality in the area and evaluate the water quality over time. At a minimum five wells are recommended to be constructed and added to the current monitoring well network, for a total of eight monitoring wells. A nested well set is recommended down gradient of the landfill within the plume to monitor any horizontal and vertical migration contaminants within the groundwater system. Additionally, for this scenario it is assumed impacts to groundwater are within the water table downgradient of the landfill and only water table wells would be necessary beyond the landfill to monitor water quality and the effects of any corrective actions. A second proposed groundwater table monitoring well will be installed to the south in between the landfill and the residential irrigation wells and the third will be installed to the east between the landfill and the private drinking water well at the farmstead. A fourth will be installed further downgradient in a southeast direction to monitor downgradient migration of the groundwater plume. A fifth well is proposed to be installed to the west in between the landfill and

the residential wells to monitor any groundwater migration in this direction from the migration of landfill gas and/or drawing the plume in this direction from pumping of the supply wells given their proximity.

Drilling and Sampling

Soil borings advanced for well construction will be completed using a truck mounted drilling rig with macro-core soil-probe and hollow stem auger or roto-sonic drilling techniques. Drilling, sampling and well construction will be completed by a MDH licensed water well contractor. A soil sampling barrel will be advanced at the well location using a two-inch diameter I.D by four-foot macro-core sampling barrel. The soil sampling will be conducted continuously to a depth of approximately 40 feet bgs. A field geologist/engineer will be on site to observe and document drilling and sampling operations, log the soil borings and collect soil samples for laboratory analysis.

Five soil samples will be collected from the proposed well screen intervals and submitted to an off-site laboratory for sieve analysis in order to refine soil classification and to acquire the soil silt and clay content. Soil samples to be submitted for laboratory analysis will be chosen in the field. The sample locations will be selected in an attempt to obtain representative conditions within the water table.

Monitoring Well Installation

Five monitoring wells are proposed to be constructed in boreholes at the proposed boring locations. The shallow wells will be constructed within the water table with a 10-foot long well screen set approximately two to three feet below the water table interface. The proposed material for this well is poly vinyl chloride (PVC). The deep well will be constructed with a bottom of well screen approximately 20 feet below the terminus of water table well. This well will be constructed with a 5-foot long well screen. The proposed material for this well is a stainless steel well screen and low carbon steel riser casing.

The proposed well-screen slot opening for these wells is 0.010-inch. Screen length was selected in accordance with the MPCA Solid Waste Management Rules, Chapter 7035.2815, Subpart 10 item J (1). All methods and materials used in the construction of these wells shall conform to the MDH, Water Well Construction Code, Chapter 4725.

The casing and screen will be centered in the borehole to ensure a continuous seal around the casing. The annular space of the wells, in the screened interval, will be backfilled with clean filter sand (washed and graded), to a level approximately two to three feet above the top of the well screen. The filter sand will be allowed to settle and a bentonite seal will be placed above the sand pack. The remainder of the annular space will be filled with a MDH approved high-solids bentonite clay grout (Enviro-Plug Grout or similar bentonite grout). The grout will be placed under pressure by tremie pipe with side discharge, beginning at the top of the seal and working to the surface in one continuous operation. A six-inch diameter steel protective casing with locking cap will be placed over the well casing and ready-made concrete will be poured in and around open annular space and protective casing. The well casing and protective casing will extend approximately two to three feet above the ground surface. A concrete apron will be placed around the protective casing to promote run-off. Wells will be labeled with the designed well identification number. It is assumed that the wells will be constructed outside of any flood plain and no special well construction will be necessary.

Well Development

New wells will be developed until representative formation water, free of the effects of well construction, is obtained, to assure adequate well communication with the aquifer. Well development will be conducted approximately 24 hours after well construction is completed. The drilling subcontractor will develop each well by pumping, and surging as necessary. All equipment used for development will be steam cleaned prior to use. Representative formation water will be judged to have been obtained when pH, temperature and conductivity readings are stable. Stabilization for well development will be as follows:

pH: ± 0.5 Standard Units
Temperature: $\pm 1^\circ$ Celsius
Conductivity: $\pm 10\%$
Turbidity: < 10 Nephelometric Turbidity Units

Survey

The new monitoring wells will be surveyed by a licensed land surveyor and incorporated onto a base map, if available that depicts all monitoring locations at the Landfill. Top-of-casing elevations will be determined to the nearest 0.01 feet and ground elevations to the nearest 0.1 feet. Well location data will be reported in UTM coordinates.

Water Level Monitoring

Water levels will be collected from the new wells upon completion of the well construction and again after well development. Additional water-level-measuring events will be completed on a semimonthly basis for three months and then with the normal ground water monitoring events thereafter. Water levels will be measured to the nearest 0.01 feet.

Aquifer Response Test

Aquifer response tests to calculate horizontal hydraulic conductivity will be conducted on each monitoring well. The static water level in each monitoring well will be measured to the nearest 0.01 foot with an electronic water level indicator. The well will then be purged of water and a water level was recorded. The well will be allowed to recharge and water level measurements to the nearest 0.01-foot will be recorded using a pressure transducer or electronic data logger until the water level returns to static conditions.

Data collected will be analyzed using Aqtesolve or similar for the analysis of pumping test, slug test, etc. to determine hydraulic conductivity of an aquifer.

Baseline Ground Water Sampling

Ground water samples will be collected from the newly constructed monitoring wells to evaluate water quality. Two sampling events will be conducted; the first event will be conducted approximately one week after well construction and the second event will be completed approximately one month later. Ground water samples will be submitted to a state contracted laboratory for analysis for VOCs and metals:

Objective 2 Timeline:

- Three weeks for Remedial Investigation Coordination, arranging personnel, scheduling subcontractors and gathering equipment to conduct field investigation
- Two weeks to conduct field work to complete LFG probes, groundwater probe investigation and construction, data collection and sampling of groundwater monitoring wells
- Two months after completion of field investigation to tabulate and summarize field work and evaluate data collected during RI to prepare report with recommendations for the evaluation of any necessary remedial options.

Objective 2 Deliverables:

Site Evaluation and RI Report

Documentation of the investigation activities described in the preceding sections will be summarized in a report. The report will present field methods and procedures, soil boring logs and soil, groundwater and landfill gas sampling results. The report will be submitted approximately two months after the completion of all field work.

Additionally, the report will include:

- Photo documentation of drilling and sampling activities.
- Regional and site specific geology and hydrogeology.
- Demarcation of the extent of LFG.
- Hydrogeologic characteristics of the aquifer beneath the site.
- Delineation of the extent and magnitude of groundwater impacts.
- Evaluation of groundwater quality data.
- Recommendations to pursue remediation and feasibility of options.

Objective 3: Feasibility Study/Response Action (FS/RA)

The following assumptions are made regarding the results of the Remedial Investigation:

- Landfill site reconnaissance and shallow boring program indicates the landfill cover is inadequate. There are areas of settlement, erosion, ponding water, and cap materials appear to be of general fill make up.
- Landfill gas and flow was detected emanating from the LFG passive vents. LFG migration is evident as dead vegetation was observed along the edge of the landfill boundary and in the adjacent field.
- The soil gas probe investigation found evidence of LFG migration from the landfill to the west extending to existing the development 150 feet west of the landfill boundary, south approximately 200 feet and approximately 50 feet east into the adjacent corn field.
- Gas monitoring conducted in the basements of the homes of the development 150 feet west of the landfill boundary did identify recordable levels of methane above 2% LEL. Hydrogen sulfide was not detected above recordable levels. Therefore, further monitoring is recommended.
- Groundwater monitoring and the groundwater investigation found impacts to the groundwater within the water bearing sand layer of the upper most saturated layer. Water sampling and analysis did not detect impacts at lower depths.
- The groundwater samples collected for laboratory analysis during the remedial investigation identified select VOCs and metals at concentrations above drinking water standards in monitoring wells and probes within approximately 100 feet of the current landfill waste limits and south-southeast of the landfill. Concentrations

declined with distance from the landfill perimeter and detected compounds were below groundwater standards at the outer most limits of the investigation of 500 feet from the waste mass.

- Groundwater samples from the irrigation wells of the existing homes south of the landfill were collected and did identify low levels of VOC contamination. Odors were also observed at the site of sampling, however, it has not been confirmed whether these odors are due to migrating LFG or the existence of iron bacteria. Implementation of LFG response actions should mitigate this issue over time.
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Task A: Feasibility Study

The results of the RI determined that there is currently a potential threat to human health and the environment due to contamination created by the existing closed landfill. As summarized above, current threats to human health and the environment include the migration of landfill gas from the site. In addition, groundwater contamination has been documented above current MDH HRLs in monitoring wells within 100 feet of the landfill waste boundaries and at, or slightly below, HRLs in century wells located between the landfill and potential receptors.

Therefore, the objective of the FS is to:

- Identify potential cost effective response actions for the protection of human health and the environment.
- Evaluate identified response actions based on potential effectiveness and costs.
- Recommend a final response action plan for final evaluation and design.

Subtask 1: Identify Response Action Scenarios

The following potential response actions have been identified as possible solutions to contamination documented at the site and surrounding areas.

- 1) No Action: This response action would involve no implementation of response actions at the site, relying on natural attenuation and dilution to mitigate the contamination over time.
- 2) Excavate and Relocate Waste Mass: This response action would involve excavation of the waste mass and management in a lined facility.

3) Improving Final Cover System:

This response action would involve the following:

- Grade to increase slopes for improved runoff drainage.
- Construct RCRA Subtitle D Cover System or equivalent.

4) Installation of Landfill Gas Management System:

This response action would involve the following:

- Installation of methane monitoring in homes within 150 feet of the landfill and long term monitoring of off-site migration.
- Retain passive vent well system with passive interceptor trench and long term migration monitoring.
- Convert passive vent well system into active system with long term migration monitoring.

5) Installation of Groundwater Remediation System:

This response action would involve the following:

- Conduct long term monitoring with monitoring well network.
- Groundwater pump and treat system with long term monitoring.
- Chemical injection with long term monitoring.
- Restrict the use of all private wells to “non-drinking water” use only and require connection to the available city water supply system in conjunction with the implementation of long term monitoring

Subtask 2: Evaluation of Potential Response Actions

The following is an evaluation of potential response actions identified above. Evaluation criteria include potential effectiveness, ease of implementation and overall potential costs. **Note: For purposes of this proposal, actual costs estimates were not developed. Rather an intuitive assessment of relative costs compared to other response action alternatives is presented.**

- 1) No Action: This response action assumes no additional work, with the exception of follow-up monitoring, will be completed at the site to address contamination identified. Rather, reliance on the existing passive landfill gas venting system, natural attenuation and dilution of groundwater contaminants will be implemented. The advantages and disadvantages to this alternative are as follows:

Advantages:

- Low cost.
- No exposure of workers to waste materials.
- By not performing construction activities, activities that are not sustainable or contribute to contamination of other media (i.e., Use of natural resources such as clean soils for final cover system, vehicle air emissions from on-site equipment and hauling vehicles, etc.) will not be performed.

Disadvantages:

- The remediation will be completed over the long term and immediate threats to human health and the environment will not be addressed for an extended period of time.
- Long term use of the property will be limited and will likely require it to be secured.

- 2) Excavate and Relocate Waste Mass: This response action assumes the excavation of the entire waste mass and relocation at another lined waste disposal facility. The advantages and disadvantages to this alternative are as follows:

Advantages:

- Removal of source of contamination and, along with it, removal of long term threat to human health and the environment. Additional monitoring of off-site groundwater impacts will be necessary to verify decreasing concentrations of contaminants over time.
- Unrestricted use of the site and surrounding properties upon completion of this response action.

Disadvantages:

- High cost.
- Exposure of workers to waste materials including both physical and chemical hazards.
- Construction activities will likely employ non-sustainable practices (i.e., importing soils from an off-site soil borrow source to backfill excavation) and contribute to

contamination of other media (i.e., emissions from vehicles excavating and hauling waste, emissions from vehicles hauling clean fill to the property and vehicles placing the clean import soils).

- 3) Improving Final Cover System: This response action involves improving the existing cover system to promote run-off and prevent infiltration of incident precipitation. Three different scenarios are being evaluated including grading with clean off-site soils to increase slopes, consolidating waste mass to increase slopes, and construction of a RCRA/RCRA equivalent cover system to decrease infiltration of incident rainfall into the waste mass. The advantages and disadvantages to this alternative are as follows:

Scenario 1: Increasing slopes with clean soil import.

This scenario anticipates importing clean soils from an off-site borrow source to increase site slopes to promote run-off of incident precipitation from the area of the waste mass, thus, decreasing infiltration into the waste mass and subsequent contamination of the groundwater.

Advantages:

- Decreased infiltration into the waste mass.
- Low permeable soils can be imported and compacted to decrease infiltration of incident precipitation into the waste mass.
- Moderate cost if borrow source found nearby.
- Limited exposure of workers to waste materials.
- Increases options for final site use.

Disadvantages:

- High cost if borrow source is not nearby.
- Construction activities will employ non-sustainable practices (i.e., importing soils from an off-site soil borrow source to backfill excavation) and contribute to contamination of other media (i.e., emissions from vehicles excavating and hauling waste, emissions from vehicles hauling clean fill to the property and vehicles placing the clean import soils).

Scenario 2: Increasing slopes by consolidating waste mass.

This scenario anticipates excavation of a portion of the waste mass for placement over remaining waste for use in grading to increase slopes, encouraging run-off from the area of the waste mass. Existing cover soils will be removed prior to excavation so they can be reused as cover for the area of the reconsolidated waste mass.

Advantages:

- No need to import clean soils from off-site for grading purposes (see below for disadvantage of some anticipated import requirements).
- Increase run-off along with decreased infiltration into the waste mass.
- Increases options for final site use.

Disadvantages:

- Significant exposure of workers to physical and chemical hazards associated with the excavation of waste.
- Significant costs associated with excavation/placement of waste materials and anticipated import of clean off-site materials to backfill areas of excavated waste.
- Construction activities will likely employ non-sustainable practices (i.e., importing soils from an off-site soil borrow source to backfill excavation) and contribute to contamination of other media (i.e., emissions from vehicles excavating and hauling waste, emissions from vehicles hauling clean fill to the property and vehicles placing

the clean import soils).

Scenario 3: Construction of RCRA/RCRA Equivalent Cover System.

This scenario anticipates the construction of a RCRA/RCRA equivalent cover system over the existing waste mass to reduce, if not eliminate, incident precipitation infiltration into the waste mass.

Advantages:

- Significantly decreases, if not essentially eliminates, infiltration of incident rainfall into the waste mass, subsequently eliminating the source of continued groundwater contamination.
- No exposure of workers to physical and chemical hazards associated with the excavation of waste.
- Could assist with the mitigation of continuous source of VOC groundwater contamination.
- Increases options for final site use.

Disadvantages:

- Significant costs associated with construction of the different layers of the RCRA/RCRA equivalent cover system (barrier layer, sand drainage layer, rooting zone layer, topsoil and final vegetation).
- Construction activities will likely employ non-sustainable practices (i.e., importing soils from an off-site soil borrow sources for construction of different soil layers of final cover system) and contribute to contamination of other media (i.e., emissions from vehicles excavating and hauling waste, emissions from vehicles hauling clean fill to the property and vehicles placing the clean import soils).

- 4) **Installation of Landfill Gas Management System:** This response action involves supplementing/upgrading the current passive gas vent well system to mitigate landfill gas migration from the site that may negatively affect crop production and/or contribute to the accumulation of explosive gas concentrations inside nearby structures. Three different scenarios are being evaluated including continuous monitoring systems in existing homes ($0.2 > X < 2\%$ LEL) along with long term migration monitoring; supplementing existing passive gas vent well system with a passive interceptor trench system to eliminate additional migration of LFG from waste mass along with long term migration monitoring; and converting the existing passive gas vent well system to active system along with long term migration monitoring. The advantages and disadvantages to this alternative are as follows:

Scenario 1: Mitigation of Existing Homes.

This scenario anticipates the installation of continuous monitoring of LFG in existing homes with documented levels of LFG between 0.2% and 2% LEL and long term monitoring of off-site landfill gas migration towards other receptors. In addition, the passive vent well system will be maintained.

Advantages:

- Continuously monitors potential accumulation of LFG in homes where concentrations of LFG are between 0.2% and 2% LEL in an effort to be “in front of” the potential future need for residential home mitigation.
- Low cost solution.
- Provides long term monitoring for potential off-site LFG migration towards receptors.
- Significantly limits construction activities and the non-sustainable practices and vehicle emissions that go along with them. By not performing construction activities can eliminate activities that are not sustainable or contribute to contamination of other media (i.e., Use of natural resources such as clean soils for final cover system, vehicle air emissions from on-site equipment and hauling vehicles, etc.)

Disadvantages:

- Does not mitigate current off-site migration of LFG towards sensitive receptors identified in the RI.

Scenario 2: Passive Interceptor Trench.

This scenario anticipates the installation of a landfill gas interceptor trench along the west, east and southern portions of the landfill property. This trench will be constructed into the water table (approximately 20-25 feet in depth) in order to capture potential LFG migrating in these directions. This trench will be implemented along with long term monitoring of off-site migration of landfill gas towards other receptors. In addition, the current passive vent well system will be maintained.

Advantages:

- Mitigate off-site migration of LFG towards receptors identified in the RI.
- Provides long term monitoring of LFG that has migrated off-site.

Disadvantages:

- Does not allow for monitoring potential accumulation of landfill gas in current homes.
- Relatively high cost solution.
- Construction activities will likely employ non-sustainable practices (i.e., importing materials as part of construction of interceptor trench) and contribute to contamination of other media (i.e., emissions from vehicles hauling construction materials from off-site, emissions from vehicles performing construction activities).

Scenario 3: Conversion of Passive Vent Well System to Active Withdrawal System.

This scenario anticipates converting the existing passive vent wells to active vent wells to induce a subsurface vacuum to eliminate the migration of LFG from the waste mass off-site. This conversion will be implemented along with long term monitoring of off-site migration of landfill gas towards other receptors.

Advantages:

- Mitigates off-site migration of LFG towards receptors identified in the RI.
- Provides long term monitoring of LFG that has migrated off-site.
- Could potentially assist with the mitigation of the continuous source of VOC contamination in groundwater.
- With the use of existing vent well system, costs are anticipated to be relatively low.
- Significantly limits construction activities and the non-sustainable practices and vehicle emissions that go along with them. By not performing construction activities can eliminate activities that are not sustainable or contribute to contamination of other media (i.e., Use of natural resources such as clean soils for final cover system, vehicle air emissions from on-site equipment and hauling vehicles, etc.).

Disadvantages:

- Does not allow for monitoring potential accumulation of landfill gas in current homes.
- Low quality and quantity of landfill gas will likely require supplemental gas source to operate combustion flare efficiently.
- Low quality and quantity of landfill gas will not allow for beneficial use of landfill gas.

- 5) Installation of Groundwater Remediation System: This response action involves addressing groundwater contamination identified during the RI and the need to prevent it from potentially contaminating private water supply wells in the area. Four different scenarios are being evaluated including long term monitoring of groundwater contamination migration utilizing the existing monitoring well network, implementation of a groundwater pump and treat/hydraulic barrier to remediate groundwater and prevent further migration off-site, implementation of chemical injection at strategically determined locations of the currently defined

plume to reduce contaminants; and abandonment of existing private wells and hook-up to existing available public water supply system. Each of the first three scenarios will include long term monitoring of the existing monitoring well network and existing residential wells. The advantages and disadvantages to this alternative are as follows:

Scenario 1: Long Term Monitoring.

This scenario anticipates the long term monitoring of off-site migration of contaminated groundwater towards off-site receptors. This scenario is being considered because the RI has determined that contamination has not reached private water supply wells to date.

Advantages:

- Continuously monitors migration of existing contamination and allows for time to respond with more aggressive remediation if concentrations increase.
- Low cost solution.
- Significantly limits construction activities and the non-sustainable practices and vehicle emissions that go along with them. By not performing construction activities can eliminate activities that are not sustainable or contribute to contamination of other media (i.e., Use of natural resources such as clean soils for final cover system, vehicle air emissions from on-site equipment and hauling vehicles, etc.)

Disadvantages:

- Does not mitigate current off-site migration of contaminated groundwater plume towards sensitive receptors identified in the RI.
- Does not mitigate continuous source of contamination to groundwater.

Scenario 2: Installation of Groundwater Pump and Treat/Hydraulic Barrier System.

This scenario anticipates the installation of a groundwater pump and treat system to treat extracted groundwater and act as a hydraulic barrier to further migration of groundwater contamination from the site. This groundwater pump and treat/hydraulic barrier system will be implemented along with long term monitoring of off-site migration towards private water supply wells.

Advantages:

- Mitigate continued off-site migration of contaminated groundwater towards private water supply wells.
- Provides long term monitoring of off-site migration of the groundwater contamination plume.

Disadvantages:

- High cost solution.
- Does not address/eliminate continuous source of groundwater contamination.
- Limited effectiveness in glacial till environment.
- Additional costs for treatment of extracted groundwater prior to discharge.
- Ongoing operation and maintenance of treatment system will be required.
- Construction activities will likely employ non-sustainable practices (i.e., importing materials as part of construction of interceptor trench) and contribute to contamination of other media (i.e., emissions from vehicles hauling construction materials from off-site, emissions from vehicles performing construction activities).

Scenario 3: Strategic Chemical Injection.

This scenario anticipates the injection of chemicals at strategic locations (high contaminant concentrations) into the aquifer to treat contamination through chemical reactions. This chemical injection strategy will be implemented along with long term monitoring of off-site migration of groundwater contamination plume towards private water supply wells.

Advantages:

- Could potentially mitigate off-site contaminant plume towards off-site private water supply wells.
- Provides long term monitoring of off-site migration of the groundwater contamination plume.

Disadvantages:

- Relatively high cost solution.
- Does not address/eliminate continuous source of groundwater contamination.
- Isn't typically effective in glacial till geologic/hydrogeologic environments.

Scenario 4: Hookup to Available Public Water Supply System.

This scenario anticipates the abandonment/restricted use of existing private supply wells and hookup to the City's available municipal drinking water supply system. This response action will be implemented along with long term monitoring of off-site migration of groundwater contamination plume off-site.

Advantages:

- Provides for long term, safe drinking water supply for current and future developments in the area.
- Relatively low cost option.
- With availability of existing system, implementation can be completed relatively quickly.

Disadvantages:

- Does not address/eliminate continuous source of groundwater contamination.
- Does not address continuous impacts and migration of groundwater plume.

Subtask 3: Recommended Response Action(s)

Based on the above evaluation of response actions, Terracon will recommend a response action, or combination thereof, that will be a cost effective solution for protection of human health and the environment. Based on the above discussion, Terracon recommends the following:

- Consolidate the waste mass by excavating down to the water table and around the west, south and east edges of the waste mass to generate enough waste to create slopes of 5% or greater.
- Backfill excavated trenches created by the consolidation of the waste mass with permeable aggregate and install a vapor capture/release system to intercept landfill gas from migrating from the site in these directions.
- Install continuous landfill gas monitors in residences within 150 feet of the landfill and continue long term monitoring of landfill gas migration.
- Construct a RCRA equivalent final cover system over the consolidated waste mass to significantly reduce, if not eliminate, infiltration of precipitation through the waste mass and into the groundwater.
- Require that existing private wells be restricted in use or abandoned and all residents hook up to the available public drinking water supply.
- Prepare a deed restriction (i.e., environmental covenant, well restriction, etc.) that will inform current and future property owners of the current condition of the site, potential issues on the site and surrounding properties, and specific preventative measures necessary to occupy the site and surrounding properties.

- Terracon will compile a FS report including the above recommendations.

Terracon believes the above referenced approach will be the most cost effective approach to mitigating risk to human health and the environment. By supplying a clean, long term drinking water supply and landfill gas migration monitoring plan, the approach is protective of human health into the future. Construction of the final cover system will significantly reduce or eliminate further infiltration of precipitation through the waste mass and further contaminating the groundwater such that over time reductions in groundwater contamination will be realized. Passive venting of landfill gas and prevention of further off-site migration may also decrease further groundwater contamination with VOCs.

Objective 3 Timeline:

- Three months after completion of field investigation to identify potential response actions, perform a detailed evaluation of potential response actions, prepare recommended response actions and summarize in a final report for MPCA review and approval.

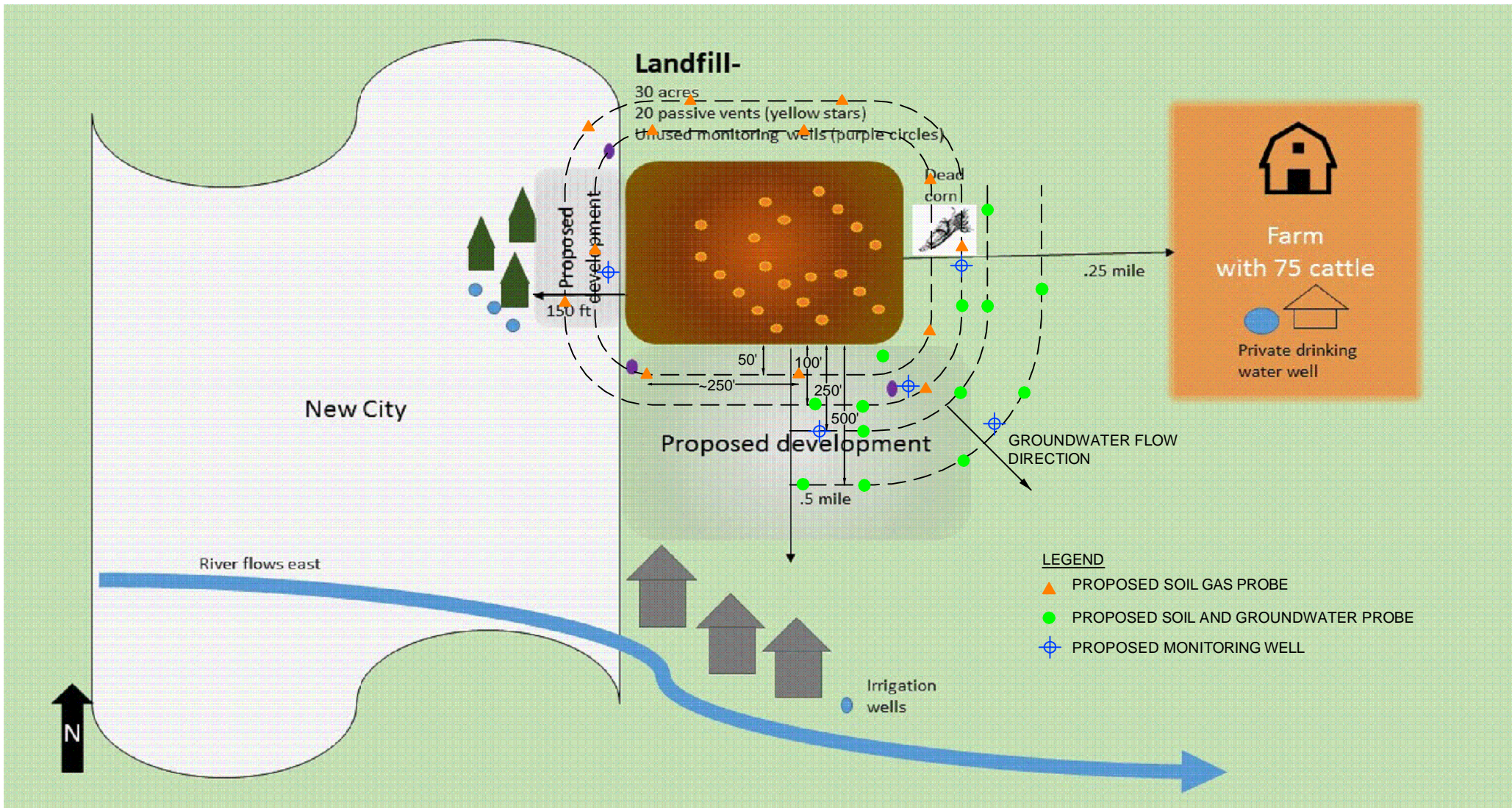
Objective 3 Deliverables:

Feasibility Study/Response Action Evaluation Report

The report will be prepared based on the final results of the RI. The report will present a summary of RI results, identification of potential response actions, detailed evaluation of potential response actions and final recommendations for response actions.

Additionally, the report will include:

- Definition of existing site and surrounding property conditions.
- Delineation of the extent of LFG.
- Delineation of the extent and magnitude of groundwater impacts.
- Detailed discussion of technical feasibility of potential response actions.
- Supporting documentation of identified potential response actions.
- Detailed cost analysis of potential response actions.
- Final recommendations for response action(s).



Project title: Category C, Scenario C - Closed Landfill Environmental Services Work Plan for Landfill Site Evaluation

Project Budget	1. Personnel							2. Subcontracting	3. Equipment	4. Other Expenses	Totals (Extended)
	Project Manager	Engineer IV	Engineer III	Scientist II	Scientist I	Field Technician	GIS/CADD	Project Manager			
* Objective 1: Site Evaluation											
Task A: Review of Existing Information											
Subtask 1: Data Request: MPCA/County /City	1.0				6.0						7.0
Subtask 1: Review reports/Data, CWI & MGS	1.0	1.0	6.0	6.0	4.0						18.0
Subtask 1: Access Agreements	2.0				8.0		2.0				12.0
Subtask 1: HASP	1.0	1.0			4.0						6.0
Total for Subtask 1	5.0	2.0	6.0	6.0	22.0	0.0	2.0				43.0
Task A: Conduct Initial Site Evaluation											
Subtask 2: Cover and Vegetation Assessment	1.0		8.0			16.0					25.0
Subtask 2: Groundwater Levels and Sampling	1.0					10.0					11.0
Subtask 2: LFG Monitoring	2.0					8.0					10.0
Subtask 2: Door to Door Survey/Interviews	2.0				8.0						10.0
Subtask 2: Site Evaluation Report and RI Work Plan	2.0	2.0	20.0	20.0	10.0		8.0				62.0
Total for Subtask 2	8.0	2.0	28.0	20.0	18.0	34.0	8.0				118.0
OBJECTIVE 1: TOTAL HOURS	13.0	4.0	34.0	26.0	40.0	34.0	10.0				161.0
Objective 2: Remedial Investigation											
Task A: Remedial Investigation Field Actions											
Subtask 1:LFG Probes and LFG Monitoring Wells	5.0		2.0	2.0	25.0						34.0
Subtask 2: Groundwater/Soil Investigation	5.0			8.0	50.0						63.0
Subtask 2: Groundwater MW Construction and Sampling	5.0			4.0	25.0	10.0					44.0
Subtask 2: Objective 2 Remedial Investigation Report	10.0	2.0	8.0	30.0	4.0	4.0	8.0				66.0
Total for TASK A	25.0	2.0	10.0	44.0	104.0	14.0	8.0				207.0
OBJECTIVE 2: TOTAL HOURS	25.0	2.0	10.0	44.0	104.0	14.0	8.0				207.0
Objective 3: Feasibility Study/Response Action											
Task A: Feasibility Study											
Subtask 1: identify Potential Response Actions	4.0		4.0	4.0							12.0
Subtask 2: Evaluation of Potential Response Actions	8.0		40.0	40.0							88.0
Subtask 3: Recommended Response Action(s)	4.0		16.0	24.0	8.0	4.0	8.0				64.0
Total for TASK A	16.0	0.0	60.0	68.0	8.0	4.0	8.0				164.0
OBJECTIVE 3: TOTAL HOURS	16.0	0.0	60.0	68.0	8.0	4.0	8.0				164.0
Total Project Hours	54.0	6.0	104.0	138.0	152.0	52.0	26.0				532.0

ATTACHMENT C
Professional and Technical Services
Remediation Master Contract
State of Minnesota

SWIFT Master Contract No.:
T-Number:
Agency Interest No.:
Activity ID No.:

This Master Contract is between the State of Minnesota, acting through its Commissioner of the **Minnesota Pollution Control Agency** ("MPCA" or "State") 520 Lafayette Road North, St. Paul, MN 55155 and **Contractor Name** ("Contractor"), address, city, state zip .

Recitals

1. Under Minn. Stats. § § 15.061 and 116.03 Subd. 2, the State is empowered to engage such assistance as deemed necessary.
2. The State is in need of multiple contracts to perform <Category A > <Category B> <Category C > program activities.
3. The Contractor represents that it is duly qualified and agrees to perform all services described in this Master Contract ("Master Contract" or "Contract") to the satisfaction of the State.

Master Contract

1. TERM OF MASTER CONTRACT

1.1. Effective date: July 1, 2018, or the date the State obtains all required signatures under Minn. Stat. § 16C.05, Subd. 2, whichever is later. **The Contractor must not accept work under this Master Contract until this Master Contract is fully executed and the Contractor has been notified by the State's Authorized Representative that it may begin accepting Work Orders.**

1.2. Work Order Contracts. The term of the work under Work Order contracts issued under this Master Contract may not extend beyond the expiration date of this Master Contract.

1.3 Expiration date: June 30, 2023, with no contract extensions, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

1.4 Survival of terms: The following clauses survive the expiration or cancellation of this Master Contract and all Work Orders: Indemnification; State Audits; Government Data Practices and Intellectual Property; Publicity and Endorsement; Governing law, Jurisdiction, and Venue; and Data Disclosure.

2. SCOPE OF WORK

The Contractor, who is not a State employee, will upon request from the State, prepare workplans for work outlined in <Category A > <Category B> <Category C > outlined in this Master Contract and the Request for Proposal (RFP) which is incorporated herein by reference, and perform the duties authorized in a Work Order and any related Change Order, Work Order Amendment, or Stop Work Order issued by the State, as described in this Master Contract and the RFP. No work shall be performed by the Contractor under this Master Contract without State authorization. In the event of a conflict between the provisions of this Master Contract and the provisions of the RFP, the provisions of this Master Contract shall prevail.

The Contractor shall begin work only upon receipt of a fully executed Work Order that authorizes the Contractor to begin work under this Master Contract. Any and all effort, expenses, or actions taken before the Work Order is fully

executed is not authorized under Minnesota Statutes and is under taken at the sole responsibility and expense of the Contractor.

The Contractor understands this Master Contract is not a guarantee of work under a Work Order contract. The State has determined it may need the services under this Master Contract, but does not commit to spending any money with the Contractor.

<Category A Scope of Services>

<Category B Scope of Services>

<Category C Scope of Services>

3. TIME

The Contractor must comply with all the time requirements described in Work Orders. In the performance of Work Orders, time is of the essence.

4. CONSIDERATION AND PAYMENT

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)** for five (5) years between all Master Contracts.

- a. **Travel expenses.** Reimbursement for travel and subsistence expenses actually and necessarily incurred by the Contractor as a result of any Work Order will be reimbursed, for travel and subsistence expenses in the same manner and in no greater amount than provided in the current "Commissioner's Plan" promulgated by the Commissioner of Minnesota Management and Budget which is incorporated into this Master Contract by reference which can be viewed at: <http://www.mmd.admin.state.mn.us/commissionersplan.htm>. The Contractor will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received the State's prior written approval for out-of-state travel. Minnesota will be considered the home State for determining whether travel is out of state. When coming from out-of-state the Contractor's hourly rate for staff will not apply until the Contractor's staff has arrived at the project location.

To qualify for the breakfast and dinner costs, the Contractor must leave the point of mobilization before 6:00 a.m. and arrive back at the point of mobilization after 7:00 p.m., respectively. Lunch reimbursements may be claimed if the Contractor is in travel status more than 35 miles away from his/her normal office or is away from home overnight.

Receipts for meals and lodging must be attached to the Contractor's invoices. Meal receipts are required to be submitted with invoices, and retained in accordance with Clause 33. Meal and lodging costs and any expenses must be summarized in an Expense Worksheet and submitted with invoices.

4.2 Payment

- a. **Terms of Payment.** The Contractor shall be paid for actual services performed for the State in accordance with Work Orders from the State and in accordance with the Classifications and Rates established in Clause 10, of this Master Contract. The Contractor will be paid in accordance with the Workplan and Budgets for each Work Order.
- b. **Invoices.** The Contractor shall submit invoices to the State monthly for work completed during the prior month, unless no costs, or minimal costs are incurred during the billing period. The invoices shall be submitted in the format acceptable to the State. Invoices and attachments should be consistent with the Work Order Budget. Documentation must be itemized and legible. It is the Contractor's sole responsibility to make sure invoices are submitted as required. Invoices shall include:

- a. Contractor name

- b. SWIFT Master Contract ID No.
- c. Work Order Number
- d. Purchase Order Number
- e. Invoice number
- f. Invoice date
- g. State Project Manager
- h. Invoicing period (actual working period)
- i. Itemized list of all work performed and Brief Update of Tasks Completed
- j. Itemized list of all labor, supplies and equipment
- k. Subcontractor invoices
- l. Mileage expenses
- m. Itemized expenses with receipts, for meals, lodging, and parking expenses per person per day (State to provide form)
- n. Staff travel logs and/or timesheets (if requested or applicable)
- o. Documentation of times and dates must be disclosed on the expense worksheet and attached to invoice
- p. Retainage calculation
- q. Budget Summary Report (form provided by State) summarizing State approved budget amounts by task and total billed to date for the categories of Contractor and subcontractors labor, expenses, and equipment.
- r. Expenses as approved on workplan
- s. Brief update of tasks completed for subject invoice

MPCA Work Order invoices will be submitted to mpca.ap@state.mn.us.

If there is a problem with submitting an invoice electronically please contact the MPCA Accounts Payable Unit at 651-757-2491.

Minnesota Department of Agriculture (MDA) Work Order invoices should be submitted by email (preferred) to: MDA.Accounts-Payable@state.mn.us or by US Mail to Finance and Budget Division, Accounts Payable, 625 Robert Street North, Saint Paul, MN 55155.

The State's Authorized Representative shall have the authority to approve invoices, and no payments shall be made without the approval of the State's Authorized Representative. Payment shall be made within thirty (30) days of submission of the Contractor's invoices for services performed. The State shall pay interest at the rate of one and one half percent (1.5%) per month to the Contractor for undisputed billings when the State has not paid the billing within thirty (30) days following receipt of the invoice, in accordance with Minn. Stat. § 16A.124. When discrepancies occur regarding portions of an invoiced amount, the State shall pay the undisputed amount in accordance with this part. The disputed items shall be paid within thirty (30) days of when the discrepancies are resolved.

- c. **Retainage.** Under Minnesota Statutes §16C.08, subdivision 2 (10), no more than 90 percent of the amount due under any Work Order may be paid until the final product of the Work Order contract has been reviewed by the State's agency head. The balance due will be paid when the State's agency head determines that the Contractor has satisfactorily fulfilled all the terms of the Work Order.

5. CONDITIONS OF PAYMENT

All services provided by the Contractor under a Work Order must be performed to the State's satisfaction, as determined at the sole discretion of the State's Authorized Representative and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations including business registration requirements of the Office of the Secretary of State. The Contractor will not receive payment for work found by the State to be unsatisfactory or performed in violation of federal, state, or local law.

6. CONTRACT SERVICE PRICES

When the MPCA Contractor hires a State Contractor, the MPCA Contractor is required to pay the State Contractor within 30 days after receipt of the invoice for undisputed billings from the State Contractor. The MPCA Contractor is responsible to assure the State Contractor's invoice and services were in compliance with the MPCA Work Order, State Contract scope of services and fee schedules.. The MPCA Contractor shall also assure the services were provided. The MPCA Contractor has the option to submit invoices twice a month to expedite payment of State Contractor/Subcontractor invoices.

The Contractor may provide oversight and invoice approval of State Construction Contracts over \$50,000 and ensure invoices are in compliance with the scope of work that was performed. However, the Contractor shall not pay the State Construction Contractor directly. The State Construction Contractor shall submit invoices to the State for payment and the State will make payments directly to the State Construction Contractor.

The end of the State fiscal year is June 30. All invoices are due by August 15 of each year for work done prior to July 1 of that year. Charges incurred in two fiscal years (before and after July 1) shall not be on the same invoice. The State closes its fiscal year accounts at the end of August.

Courier services shall be reimbursable when requested by the MPCA. Copies of plans and specifications for bid packages for major construction projects shall be reimbursable when approved in the Work Order. The State shall not pay for markup on Contractor or Subcontractor invoices.

7. PAYMENT TO SUBCONTRACTORS

As required by Minn. Stat. § 16A.1245, the prime Contractor must pay all subcontractors, less any retainage, within ten (10) calendar days of the prime Contractor's receipt of payment from the State for undisputed services provided by the subcontractor(s) and must pay interest at the rate of one and one-half percent per month or any part of a month to the subcontractor(s) on any undisputed amount not paid on time to the subcontractor(s).

8. SUPPLIES AND EQUIPMENT PRICING

Supplies and Expenses: The State considers the following items to be examples of supplies, disposables, and/or equipment that are already part of a Responder's overhead that will not be reimbursed separately. This is not an all-inclusive list.

- a. Vehicle or Vehicle daily rates
- b. Tool Boxes
- c. Hand tools and small electric tools
- d. Tri-pod
- e. Grease
- f. Mobile phone or related fees
- g. Answering machine/voice mail systems or access
- h. Computer/tablets/field notebooks/printer and ink cartridges
- i. Hand-held global positioning system locator
- j. Digital/film camera, photo processing and film
- k. Bucket
- l. Tape measures
- m. Gloves
- n. Level D personal protective equipment (including but not limited to coveralls, steel-toed boots/shoes, safety glasses or chemical splash goggles, face shield, ear protection, hard hat, gloves)
- o. First aid kit
- p. Eye wash

- q. Trash bags
- r. Duct tape
- s. Rainwear suits and raingear
- t. Distilled water
- u. Ice/coolers
- v. Bungee cords
- w. Alconox
- x. Ziplocs or similar plastic bags
- y. Electrical cords
- z. Stamps or postage
- aa. Boot covers
- bb. Locks
- cc. Tubing
- dd. Nails/screws/bolts/fasteners
- ee. **Items less than \$30**

Equipment: All anticipated equipment to be used on all projects under this Master Contract is listed on the equipment list. Any equipment not listed, if approved by the MPCA Project/Contract Manager, shall be purchased as required in the MPCA Contractor/Subcontractor Purchasing Manual: <https://www.pca.state.mn.us/about-mPCA/contractor-and-subcontracting-guidance>.

The MPCA will allow the Contractor to use MPCA equipment, if available, with MPCA contract manager approval and proper training as deemed appropriate by the contract manager. The MPCA will not reimburse contractors for this training. The Contractor assumes all risks of loss or damage to the equipment during periods of transportation, installation, and during the entire time the equipment is in possession of the Contractor.

Items shown below shall be billed at the daily or hourly rate shown without further proof of cost.

EQUIPMENT RATES
Effective July 1, 2018 – through June 30, 2023

Equipment	Cost (per day)
Turbidity Meter	\$52.00
Oxidation-reduction potential (ORP) Meter	\$39.00
Hydrolab Quanta	\$80.00
Dissolved Oxygen Meter	\$46.00
Temperature, pH, conductivity, ORP meter	\$68.00
Temperature, pH, conductivity	\$35.00
YSI Multi Meter w/ Flow Cell	\$117.00
Flow Cell	\$77.00
Water Quality Meter (6 parameters)	\$102.00
2" Pump	\$189.00
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/O2 Gas 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

Note: all calibration gasses are included in the price of the meters.
Vibracoring cannot be conducted under this contract.

9. CONTRACTOR STAFFING AND PERSONNEL CLASSIFICATIONS

Classifications are grouped in levels. Each level has an hourly rate. To qualify for a classification, you must have the education, experience and a majority of the qualifications as listed in the RFP, which is incorporated herein by reference. Classifications and hourly rates are as follows below:

Category A: Petroleum, Superfund, Ag, and Closed Landfill Program Environmental Services

The following personnel classifications will be utilized in Category A. Additional personnel classifications other than those listed below will not be accepted.

Ecological Risk Assessor 2
Ecological Risk Assessor 3
Engineer 1
Engineer 2
Engineer 3
Engineer 4
Field Technician
GIS/CADD Specialist
Human Health Risk Assessor 2
Human Health Risk Assessor 3
On-Site Inspector
Project Manager
Quality Assurance/Quality Control Officer
Scientist 1
Scientist 2

Category B. Petroleum Only Environmental Services

The following personnel classifications will be utilized in Category B. Additional personnel classifications other than those listed below will not be accepted.

Engineer 1
Engineer 2
Engineer 3
Field Technician
GIS/CADD Specialist
Project Manager
Scientist 1
Scientist 2

Category C: Closed Landfill Program

The following personnel classifications will be utilized in Category C. Additional personnel classifications other than those listed below will not be accepted.

Engineer 1
 Engineer 2
 Engineer 3
 Engineer 4
 Field Technician
 GIS/CADD Specialist
 On-Site Inspector
 Project Manager
 Quality Assurance/Quality Control Officer
 Scientist 1
 Scientist 2

10. CLASSIFICATIONS AND RATES

Classifications are grouped in levels. Each level has an hourly rate. To qualify for a classification, you must have the education, experience and a majority of the qualifications as listed in the RFP, which is incorporated herein by reference. Classifications and hourly rates are as follows below in Rate Schedule 1 and 2:

Rate Schedule 1
Effective July 1, 2018 – June 30, 2020

Level One	Classifications	Hourly Rate
	Engineer 1	\$78.09
	Field Technician	\$78.09
	GIS/CADD Specialist	\$78.09
	Scientist 1	\$78.09
Level Two	Classifications	Hourly Rate
	Ecological Risk Assessor 2	\$97.48
	Engineer 2	\$97.48
	Human Health Risk Assessor 2	\$97.48
	Quality Assurance/Quality Control Officer	\$97.48
	Scientist 2	\$97.48
Level Three	Classifications	Hourly Rate
	Ecological Risk Assessor 3	
	Engineer 3	\$137.52
	Human Health Risk Assessor 3	\$137.52
	On-Site Inspector	\$137.52
	Project Manager	\$137.52
Level Four	Classifications	Hourly Rate
	Engineer 4	\$205.97

Rate Schedule 2
Effective July 1, 2020 – June 30, 2023

Level One	Classifications	Hourly Rate
	GIS/CADD Specialist	\$79.65
	Engineer 1	\$79.65
	Field Technician	\$79.65
	Scientist 1	\$79.65
Level Two	Classifications	Hourly Rate
	Ecological Risk Assessor 2	\$99.43
	Engineer 2	\$99.43
	Human Health Risk Assessor 2	\$99.43
	Quality Assurance/Quality Control Officer	\$99.43
	Scientist 2	\$99.43
Level Three	Classifications	Hourly Rate
	Ecological Risk Assessor 3	\$140.27
	Engineer 3	\$140.27
	Human Health Risk Assessor 3	\$140.27
	On-Site Inspector	\$140.27
	Project Manager	\$140.27
Level Four	Classifications	Hourly Rate
	Engineer 4	\$210.09

The Contactor will provide resumes to the State Contract Manager for review and approval before new staff can be added or begin work on a Work Order. New staff must meet the requirements in the RFP, which is incorporated herein by reference, of the personnel classification requested.

The Contractor will maintain and update a list of staff in matrix format that shows the personnel classifications and, staff name. The State may request and the Contractor shall comply with any request that a member of the Contractor's staff be removed from working on State projects for unsafe practices, violations of Contract procedures, or other problems. The State will pay the appropriate salary costs for the task being done.

- 11. BACKGROUND CHECKS.** After Contract award and prior to the start of Contract work, the Contractor shall conduct background checks on all current and future employees that will perform the services required in the Contract. The background checks will be conducted through the State of Minnesota Bureau of Criminal Apprehension (BCA) and the Contractor shall also conduct its own check of any job applicant's work background. The State also reserves the right to request employee background checks be performed by the Contractor through the Federal Bureau of Investigation. All costs associated with any background checks conducted by the Contractor shall be the responsibility of Contractor.

The Contractor must review the results of these background checks, and the background checks must show any felony and gross misdemeanor convictions and any misdemeanors for which jail time may be imposed that disqualify the Contractor's employee from performing work on State property or in sensitive work areas.

If the completed background check on an individual employee shows an offense on their record, the Contractor must seek written approval from the State's Authorized Representative prior to allowing that individual to work under this Contract. The State reserves the right to decline any Contractor's employee with an offense on their record.

Before a Contractor's employee is allowed onsite to work, Contractor must certify to the State that it has a printed copy of the required background check on file and will keep it and other information on file and available for a minimum of six years for audit by the State. If requested, the results of the background checks shall be provided to the State.

12. REPORTING REQUIREMENTS

Progress Reports: The Contractor shall submit progress reports monthly or on an as needed basis determined by the State's Project Manager for the appropriate Work Order for each assigned project. This requirement shall be part of the workplan.

Usage Reports: The Contractor is required to submit Usage Reports. Usage Reports are a non-billable task required under the Master Contract. Usage Reports are due every year, no later than November 1, for the previous twelve month period of July 1 through June 30. Usage Reports are to be sent in writing or electronically to the MPCA's Contract Manager.

The Usage Report must include the following information:

- a. Contractor's Name
- b. Customer Name (MPCA, MDA)
- c. Project Name
- d. Work Order Number (if applicable) and SWIFT Purchase Order Number
- e. Total Dollars by Work Order by Project for All Expenditures
- f. Total Dollars Received by the MPCA Multi Site Contractor
- g. Subcontractor's Name, Dollars Received, and Type of Service (by Work Order and per project)
- h. Total Dollars Received During the Reporting Period by all Subcontractors
- i. State Contractor's Name, Dollars Received, and Type of Service (by Work Order and per project)
- j. For the report ending June 30, the total amount received for the entire fiscal year (July 1 – June 30) and yearly totals for each Work Order and each Subcontractor per Work Order
- k. For the Environmental Products and Services portion of the Report, list products the Contractor is using or steps it is taking that are environmentally responsible (i.e. identify if the Contractor uses an E-85 vehicle and E-85 gas, or products made of recycled material)

The MPCA will provide a form to submit the above information as required.

Equipment Report: The Contractor shall submit Equipment Reports for State-owned equipment. Equipment Reports are a non-billable task required under the Master Contract. Reports are due every six months. Reports are due on March 1 for the previous six month period of July 1 through December 31 and on November 1 for the previous six month period of January 1 through June 30. Reports shall be sent electronically to the MPCA Contract Manager.

The Equipment Report shall include the following information:

- a. Contractor Name
- b. Item Description and Quantity
- c. Purchase Date and Price
- d. Make, Model, and Serial Identification Number of the Item
- e. State Asset Number (items over \$5,000)
- f. Storage Location
- g. Work Order or Purchase Order Number
- h. Site Name

When State-owned equipment is lost or stolen, the Contractor must report the loss or theft to the MPCA Contract Manager within 24 hours.

13. SUBCONTRACTING

MPCA Contractors may subcontract tasks within the scope of this Master Contract and construction tasks assigned to it under this Master Contract as specified in the MPCA Contractor and Subcontracting Purchasing Manual which is incorporated by reference. The MPCA Contractor shall follow the MPCA Contractor/Subcontractor Purchasing Manual to subcontract services. The MPCA reserves the right to reject or accept Subcontractors as defined in the current MPCA Contractor/Subcontractor Purchasing Manual available at the MPCA website:

<https://www.pca.state.mn.us/about-mpca/contractor-and-subcontracting-guidance>. The State reserves the right to update said instructions at any point. Once the State has posted revised instructions, the Contractor is required to implement all changes based on the revision date of the MPCA Contractor and Subcontracting Purchasing Manual

All construction activities must be subcontracted. The Contractor must not subcontract over \$50,000. MDA is not authorized to use the MPCA Contractor and Subcontracting Purchasing Manual.

If MPCA Contractors decides to fulfill its obligations and duties under this Master Contract through a Subcontractor, to be paid for by funds received under this Contract, the Contractor shall not execute a contract with the Subcontractor or otherwise enter into a binding agreement until it has first received written approval from the State's Authorized Representative. All subcontracts shall reference this Master Contract and require the Subcontractor to comply with all of the terms and conditions of this Master Contract. The Contractor shall be responsible for the satisfactory and timely completion of all work required under any subcontract and the Contractor shall be responsible for payment of all subcontracts.

Professional / Technical Services: Professional / Technical services cannot be subcontracted under this Master Contract.

14. PREVAILING WAGE

The Contractor shall follow the MPCA Contractor and Subcontracting Purchasing Manual in regards to subcontracting construction activities. Any work on real property which uses the skill sets of any trades covered by Labor Code and Class under prevailing wages is construction and requires prevailing wages must be attached to the bid solicitation. For more information see <http://www.doli.State.mn.us/LS/PrevWage.asp> for the list of affected trades.

15. CONTRACTOR / SUBCONTRACTOR RESPONSIBILITIES

The Contractor is responsible for all work assigned to the Contractor under this Master Contract whether the work is actually performed by the Contractor or a Subcontractor. The State considers the Contractor to be the sole point of contact with regard to matters governed by this Contract, including payment of any and all charges resulting from this Master Contract. The Contractor is responsible for ensuring that the Subcontractor complies with all provisions of this Master Contract. The Contractor shall not utilize the services of any firms that have been debarred or suspended under Federal Regulation, 40 CFR Part 32. The MPCA will reject or accept Subcontractors as provided in the MPCA Contractor and Subcontracting Purchasing Manual: <https://www.pca.state.mn.us/about-mpca/contractor-and-subcontracting-guidance>

The use of temporary staff services must be authorized by the State's Contract Manager prior to use.

In the event the Contractor fails to make timely payments to a Subcontractor, the State may, at its sole option and discretion, pay a Subcontractor any amounts due from the Contractor for work performed under the Master Contract and deduct said payment from any remaining amounts due the Contractor. Before any such payment is made to a Subcontractor, the State shall provide the Contractor written notice that payment will be made directly to a Subcontractor. If there are no remaining outstanding payments to the Contractor, the State shall not have obligation to pay or be responsible for the payment of money to a Subcontractor except as may otherwise be required by law.

The MPCA Contractor is the oversight Contractor and will provide direction to the State Contractor and Subcontractor. The MPCA Contractor is responsible for informing the MPCA Contract Manager or State's Project Manager in regards to non-performance by a State Contractor.

16. WORKPLANS:

The workplan shall set forth the tasks the Contractor proposes to perform, a time schedule, and workplan budget. Upon request by the State Project Manager, the Contractor is required to submit Workplans for Work Orders. The Workplan shall be submitted to the requesting State Project Manager for review and approval within the time period prescribed by the State.

The State and the Contractor may negotiate changes to the Workplan prior to issuing the Work Order. The Workplan, once approved by the State, becomes an integral part of the resulting Work Order.

Billable hours and expenses must not exceed the State's approved Workplan amounts. The total labor amount of staff classifications shall not exceed the approved labor amount on the Workplan per task. Only the preapproved staff classifications shall be used and the task must be completed by the appropriate level of staff classification.

Additional personnel classifications will not be permitted.

Classifications may be substituted within a level upon approval by the MPCA Project Manager. If a substitute is outside of the level, the change must be approved prior to any work being done by that classification through either a change order or amendment. Additional personnel classifications shall not be utilized.

Any hours charged to a classification not approved under this Master Contract, or on the budget submitted with the Workplan, will not be considered for payment.

The State may solicit Workplans from multiple Contractors and shall base Contractor selection on the factors set forth in Section 15, Work Orders.

The State shall not pay for the preparation of Workplans or any other work conducted by the Contractor prior to issuance of a Work Order, including time for reviewing files and meeting with State staff. However, when substantial file review is required and/or an extensive Workplan is required, the State may agree to pay for the Workplan preparation.

17. WORK ORDERS

A Work Order is a contract document that is signed by the State's Authorized Representative, the Contractor's Authorized Representative, and if applicable the Department of Administration, requiring the Contractor to perform tasks pursuant to this Master Contract. Each Work Order shall become an integral and enforceable part of the Master Contract once executed by the State. The Workplan, Budget and Timeline must be attached to the Work Order.

Work Orders may be amended by a Change Order or a Work Order Amendment as described in this Master Contract.

Work Orders shall be issued under this Master Contract at the State's discretion. Whether or not a Work Order is issued shall be based on: the Contractor's performance on previous Work Orders; potential or actual conflicts of interest; availability of staff; the need for specialized skill or experience; or other factors as determined by the State's Authorized Representative.

The Contractor shall not begin work under this Master Contract until the Contractor has received an executed Work Order from the State's Authorized Representative.

A Work Order may be issued under this Master Contract with the State's prior approval utilizing funds other than the funds available from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Minnesota Environmental Response Liability Act (MERLA), and the Minnesota Petroleum Tank Release Cleanup Account (Petrofund). The State's Authorized Representative has sole discretion regarding when this option is available.

The State fiscal year ends June 30 of each year. All Work Orders written within a fiscal year must end June 30 of that year. Should work need to continue beyond June 30, a new Work Order beginning July 1 will be required.

18. CHANGE ORDERS:

If the State's Project Manager or the Contractor's Authorized Representative identifies a change needed in the workplan and/or budget, either party may initiate a Change Order using the Change Order Form provided by the MPCA. Change Orders may not alter the overall scope of the Project, increase or decrease the overall amount of the Work Order, or cause an extension of the term of the Work Order. Major changes require an Amendment rather than a Change Order.

The Change Order Form must be approved and signed by the State's Project Manager and the Contractor's Authorized Representative in advance of doing the work. Documented changes will then become an integral and enforceable part of the Work Order. The MPCA has the sole discretion on the determination of whether a requested change is a Change Order or an Amendment. The state reserves the right to refuse any Change Order requests.

19. WORK ORDER AMENDMENTS

Except for changes made by Change Orders described in Clause 18, Change Orders, of this Master Contract, all other changes to the Workplan established in a Work Order shall be made by a Work Order Amendment, signed by the State's Authorized Representative, the Contractor's Authorized Representative, and the Department of Administration Authorized Representative.

A Work Order Amendment may be initiated by the State or by the Contractor. Under no circumstances shall the Contractor proceed with work beyond the work authorized by a Work Order unless a Change Order or a Work Order Amendment has been approved by the State. Each Work Order Amendment shall become an integral and enforceable part of the Master Contract once executed by the State. Changes in Work Order end dates must be processed through a Work Order Amendment.

A revised Workplan must be attached to the Work Order Amendment. All Work Order Amendment amounts shall not exceed 10% of the cost established in the original Work Order or \$50,000.00, whichever is less, of the overall Work Order, cumulatively.

20. STOP WORK ORDERS

The State's Contract Manager, State's Project Manager, or the State's Authorized Representative may issue a Stop Work Order if it is determined, for any reason, work authorized under a Work Order shall stop. A Stop Work Order may be verbal, but shall be confirmed in writing by the State. The Contractor shall immediately comply with the terms of the Stop Work Order, which may include steps to leave the site in a safe condition.

The Contractor shall be paid for costs properly invoiced for all work satisfactorily completed up to the date of the Stop Work Order. Costs incurred by the Contractor as a result of the issuance of a Stop Work Order shall be paid by the State through a Work Order Amendment.

21. STATE'S AUTHORIZED REPRESENTATIVES

The State's Authorized Representative has the responsibility to monitor the Contractor's performance and the authority to accept the services provided under this Master Contract. If the services are satisfactory, the State's Authorized Representative will certify acceptance on each invoice submitted for payment.

- The MPCA's Authorized Representatives for this Master Contract are: **name and contact information** 520 Lafayette Road North, Saint Paul, Minnesota 55155, or any other person the Commissioner of the MPCA designates in writing to the Contractor. The MPCA's Project Manager shall be designated in writing by the State before the Contractor begins work on a Work Order and may be changed by written notice to the Contractor.
- The MDA's Authorized Representative is **name and contact information** 625 Robert Street North, Saint Paul, Minnesota 55155, or any other person the Commissioner of the MDA designates in writing to the Contractor. The MDA's Project Manager shall be designated in writing by the State before the Contractor begins work on a Work Order and may be changed by written notice to the Contractor.

22. CONTRACTOR'S AUTHORIZED REPRESENTATIVES

The Contractor's Authorized Representative are **name and contact information**, and is authorized to sign Contracts and accept Work Orders from the State on behalf of the Contractor. If the Contractor's Authorized Representative changes at any time during this Master Contract, the Contractor must immediately notify the State.

The Contractor's Authorized Representative may designate alternative or additional representatives by written notice to the State's Authorized Representative.

23. CONFLICTS CHECK

Prior to beginning any work on a project, the Contractor shall determine whether it has any actual or potential conflict of interest in working on the project. If the Contractor determines it has no conflict of interest, it shall provide to the State the following certification within five (5) business days of receiving the first Work Order from the State per site and prior to beginning any work under the Work Order.

[To the best of the [name of Contractor]'s knowledge, no conflict of interest would be created by this firm's performance of work for the State at this site. To the best of the firm's knowledge, no relationship exists between this firm, its parent companies, affiliates, Subcontractors and subsidiaries, or any potentially responsible persons involved with the work described in this Workplan, except [disclose any relationship the Contractor has that does not rise to the level of a conflict of interest].

If the State determines that there is an actual or potential conflict of interest, the State may revoke any previously issued related Work Order. In the event that a conflict is discovered after the Contractor has begun work under the Work Order, the Contractor shall immediately notify the State's Project Manager in writing with a copy sent to State's Contract Manager, and cease work on the project until the conflict is resolved. The cost of demobilization because of a conflict shall be paid by the State unless the State's Authorized Representative finds that the Contractor should have previously discovered the conflict. The Contractor shall not conduct work for any other party on projects for which the Contractor has accepted a State project assignment unless specifically authorized to do so by the State's Authorized Representative.

24. CONTRACT RELATIONS

The Contractor shall cooperate and coordinate with other State Contractors and shall ensure all subcontractors cooperate and coordinate with other State Contractors. The Contractor and Subcontractor shall use their company's personnel assigned to the Master Contract in the Response to the RFP, which is incorporated herein by reference, or as subsequently approved by the State.

Communication among the Contractors shall be as efficient as possible. The State's use of this Master Contract must be easy and efficient, with no extra administrative burden for the State.

25. CONTRACTOR MEETINGS AND TRAINING

The Contractor shall meet with the State's representatives to discuss matters relevant to this Master Contract and the work assigned to the Contractor, upon request of the State Contract Manager, State's Project Manager and/or the State's Authorized Representative. The State's Contract Manager, State's Project Manager and/or the State's Authorized Representative shall meet with the Contractor upon the Contractor's request to discuss matters relevant to this Contract and projects assigned to the Contractor under this Master Contract. The State shall pay for meeting time only for project specific meetings. The State shall not pay for time for Master Contract status meetings or other meetings requested by the State's Authorized Representative.

The Contractor must attend training required by the State.

26. SITE ACCESS

The Contractor shall be responsible for checking property ownership and obtaining access to property needed to accomplish work assigned under this Master Contract unless otherwise notified by the State's Project Manager. However, if, after making reasonable efforts, the Contractor cannot obtain access to the site, the Contractor shall seek assistance from the State's Project Manager. The State will not pay for access to property, but it shall make other reasonable efforts to gain access to the Site. The Contractor shall use the forms provided by the State for obtaining access.

27. PERMITS AND LICENSES

The Contractor shall obtain and maintain all patents, licenses, permits, authorizations, or any other documents required by federal, State, or local governments, patent holders, or other authorities, that are needed for work the Contractor shall perform pursuant to this Master Contract. With limited exception, the State will not pay patent, permit, license, authorization, or other fees, but shall provide reasonable assistance to the Contractor in obtaining such patents, permits, licenses, authorizations, or other documents.

28. GENERAL HEALTH AND SAFETY

The Contractor shall ensure that its personnel assigned under this Master Contract, and the personnel of the State Contractor and all Subcontractors have received the appropriate level of health and safety training as specified by all applicable laws. The Contractor shall be responsible for the health and safety of its employees, and the employees of the State Contractor, and all Subcontractors in connection with the work performed under this Master Contract. The Contractor must have a copy of the project specific Health and Safety Plan available upon request at the project site. Site Security Plans will be developed as needed.

The Contractor is responsible to assure the Contractor, Subcontractor, and the State Contractor follow the Contractor's Health and Safety Plan. The Contractor must notify the State Project Manager in regards to non-performance or health and safety conditions.

29. SITE SECURITY PLAN

After award of a Work Order the Contractor shall prepare a site specific Health and Safety Plan (HASP) that complies with all applicable State and federal laws and regulations.

The Contractor shall submit a copy of the Contractor's HASP and SSP to the State's Project Manager, for review only. MPCA staff shall comply with the provisions of the Contractor's HASP and SSP when on-site. The Contractor's HASP and SSP shall not place more stringent requirements on MPCA staff than on the Contractor's employees. The Contractor must have a copy of the HASP and SSP available upon request at the project site.

Site Safety Conditions: The Contractor shall have authority to restrict from the project site anyone not complying with the Contractor's HASP and SSP. Any person so restricted from the project site shall be allowed to return to the project site after meeting all provisions of the Contractor's HASP and SSP. The Contractor must notify the MPCA Project Manager regarding non-compliance with the HASP or SSP.

The Contractor shall hold regular safety meetings. State staff may attend when appropriate. The topic of the meetings shall specifically involve safety and attendees shall, at a minimum, discuss safety problems and requirements related to the project.

The Contractor shall not be required to supply personal protective equipment or monitoring equipment for any persons other than Contractor's employees. However, the Contractor shall make available its decontamination facilities to those persons who reasonably require access to the work site, including Subcontractors, State, and other regulatory authorities. The Contractor shall be solely responsible for ensuring compliance by all persons with Contractor's HASP. However, the Contractor shall not unreasonably restrict State access to the site. If the State requests the right to observe work and State staff are denied access because of noncompliance with the Contractor's Health and Safety Program, the Contractor shall not proceed with the work until the State may observe the work.

30. SITE STABILIZATION

If the Contractor becomes aware that a site assigned to the Contractor requires immediate corrective action to stabilize the site to prevent further damage to the environment or to remove a threat to public health or welfare, the Contractor shall immediately notify the State's Authorized Representative or State's Project Manager of the situation. If authorized by the State's Authorized Representative or State's Project Manager, the Contractor shall take appropriate measures to stabilize the site.

31. WASTE REMOVAL AND WELL OWNERSHIP

The Contractor shall manage all hazardous and non-hazardous wastes according to applicable local, State and federal laws. The Contractor shall recommend to the State the means of disposal of hazardous waste. In the event the Contractor is required to manage hazardous wastes, the State's Project Manager shall obtain an U.S. Environmental Protection Agency (EPA) hazardous waste identification number to identify the State as generator of the waste. The Contractor is not responsible for the long term maintenance and proper abandonment of wells installed pursuant to this Master Contract unless the Contractor is directed to do so by a Work Order.

32. BROWNFIELD SITE-SPECIFIC STANDARDS AND PRACTICES

Contractor working on Brownfield site-specific activities must meet interim standards and practices established in EPA's proposed All Appropriate Rule, and the standards and practices contained in EPA's All Appropriate Rule when promulgated: <http://www.epa.gov/brownfields/aai/index.htm>

33. STATE AUDITS

Under Minn. Stat. § 16C.05, Subd. 5, the Contractor's books, records, documents, and accounting procedures and practices relevant to this Work Order are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this Master Contract.

34. ASSIGNMENT, AMENDMENTS, WAIVER, AND MASTER CONTRACT COMPLETE

- 34.1 Assignment.** The Contractor may neither assign nor transfer any rights or obligations under this Master Contract without the prior consent of the State and a fully executed assignment agreement, executed and approved by the same parties who executed and approved this Master Contract, or their successors in office.
- 34.2 Amendments.** Any amendment to this Master Contract must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original Master Contract, or their successors in office.
- 34.3 Waiver.** If the State fails to enforce any provision of this Master Contract or any Work Order, that failure does not waive the provision or its right to enforce it.
- 34.4 Contract complete.** This Master Contract and any Work Order contains all negotiations and agreements between the State and the Contractor. No other understanding regarding this Master Contract or Work Order, whether written or oral, may be used to bind either party.

35. CANCELLATION / TERMINATION, CONTINUITY OF SERVICES

Termination by the State: The State or Commissioner of Administration may cancel this Master Contract and any Work Orders at any time, with or without cause, upon thirty (30) days' written notice to the Contractor. Upon termination, the Contractor will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

In the event this Master Contract is cancelled or expires, the Contractor shall provide phase-in phase-out (PIPO) training if required to do so by a Work Order. The PIPO services shall be provided to enable the State or another Contractor to continue, extend, or expand the work to be performed by the Contractor. The PIPO training may include conducting a training program and establishing dates for transfer of responsibility to new personnel. During the PIPO period, the Contractor shall provide sufficient experienced personnel to allow the work governed by this Master Contract to proceed without a loss of efficiency. The Contractor shall also provide the State with copies of computer models, data tapes, and other records developed under this Master Contract, and ensure training is provided on the use of these materials. The Contractor shall be reimbursed for its PIPO costs at the rates specified in the attached fee schedule.

Termination for Insufficient Funding: The State may immediately terminate this Master Contract and any Work Order if it does not obtain funding from the Minnesota Legislature or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination must be by written or fax notice to the Contractor. The State is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Contractor will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that funds are available. The State will not be assessed any penalty if the Contract or Work Order is terminated because of the decision of the Minnesota Legislature or other funding source, not to appropriate funds. The State must provide the Contractor notice of the lack of funding within a reasonable time of the State's receiving that notice.

36. INDEMNIFICATION

In the performance of this Contract by Contractor, or Contractor's agents or employees, or Subcontractors, the Contractor must indemnify, save, and hold harmless the State, its agents, and employees, from any claims or causes of action, including attorney's fees incurred by the State, to the extent caused by Contractor's:

- a) Intentional, willful, or negligent acts or omissions; or
- b) Actions that give rise to strict liability; or
- c) Breach of contract or warranty.

The indemnification obligations of this section do not apply in the event the claim or cause of action is the result of the State's sole negligence. This clause will not be construed to bar any legal remedies the Contractor may have for the State's failure to fulfill its obligation under this Contract.

37. LIABILITY

Liability under MERLA

- A. When performing work under the Contract for the State when the State is acting pursuant to Minn. Stat. § 115B.17 of the Minnesota Environmental Response and Liability Act (MERLA), the Contractor that is not otherwise responsible for a release or threatened release of hazardous substances or pollutants or contaminants is considered to be a Contractor that is performing response actions in accordance with a plan approved by the Commissioner, for purposes of Minn. Stat. §115B.03, Subd. 10.
- B. When performing work under the Contract for the State when the State is acting:
 - i. pursuant to Minn. Stat. § 115B.17 of MERLA, or
 - ii. in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300), promulgated by the U.S. Environmental Protection Agency (EPA) pursuant to 42 U.S.C. § 9605 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) with respect to any release or threatened release of a hazardous substance, the Contractor is considered to be engaged in acts taken or omitted in preparation for, or in the course of rendering care, assistance and advice to the Commissioner or the Agency for purposes of Minn. Stat. § 115B.04, Subd. 11, and, in the event a third

party claims injury or damages resulting from acts or omissions arising from performance of the Contract, the defense provided under Minn. Stat. §115B.04, subd. 11, is intended, but not warranted by the State, to be available to the Contractor and the State as a defense to MERLA liability claims. The provisions of the Liability under MERLA paragraphs are intended, but not warranted by the State, to include subcontractors approved by the State.

Liability under CERCLA

To the extent that the Contractor meets the definition of a “response action contractor” under 42 U.S.C. § 9619(e) of CERCLA, it is intended, but not warranted by the State, that the Contractor be exempt from liability under CERCLA or other federal law as is provided in 42 U.S.C. § 9619. Furthermore, 42 U.S.C. § 9619 provides the President with discretionary authority to indemnify response action contractors for releases of hazardous substances or pollutants or contaminants arising out of negligence in the course of Superfund work. No indemnification by the State is created by the Contract. The term “response action contractor” is intended, but not warranted by the State, to include subcontractors approved by the State. Nothing in this Part is intended to be construed as a waiver by the State of the Tort Claims Act, Minn. Stat. §3.736, or any other law, legislative or judicial, limiting government liability. The duties and obligations imposed by the Contract and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the State or the Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

38. INSURANCE

Contractor certifies that it is in compliance with all insurance requirements specified in the solicitation document relevant to this Master Contract. Contractor shall not commence work under the Master Contract until they have obtained all the insurance specified in the solicitation document. Contractor shall maintain such insurance in force and effect throughout the term of the Master Contract.

- A. Contractor shall not commence work under the Contract until they have obtained all the insurance described below and the State of Minnesota has approved such insurance. Contractor shall maintain such insurance in force and effect throughout the term of the Master Contract.
- B. Contractor is required to maintain and furnish satisfactory evidence of the following insurance policies:

Workers’ Compensation Insurance: Except as provided below, Contractor must provide Workers’ Compensation insurance for all its employees and, in case any work is subcontracted, Contractor will require the Subcontractor to provide Workers’ Compensation insurance in accordance with the statutory requirements of the State of Minnesota, including Coverage B, Employer’s Liability. Insurance **minimum** limits and coverages are as follows:

- \$100,000 – Bodily Injury by Disease per employee
- \$500,000 – Bodily Injury by Disease aggregate
- \$100,000 – Bodily Injury by Accident
- Waiver of Subrogation in favor of the State of Minnesota

If Minn. Stat. § 176.041 exempts Contractor from Workers’ Compensation Insurance or if the Contractor has no employees in the State of Minnesota, Contractor must provide a written statement, signed by an authorized representative, indicating the qualifying exemption that excludes Contractor from the Minnesota Workers’ Compensation requirements.

If during the course of the Master Contract the Contractor becomes eligible for Workers’ Compensation, the Contractor must comply with the Workers’ Compensation Insurance requirements herein and provide the State of Minnesota with a certificate of insurance.

Commercial Automobile Liability Insurance: Contractor is required to maintain insurance protecting it from claims for damages for bodily injury as well as from claims for property damage resulting from the ownership, operation, maintenance or use of all owned, hired, and non-owned autos which may arise from operations under this Master Contract, and in case any work is subcontracted the Contractor will require the Subcontractor to maintain Commercial Automobile Liability insurance. Insurance **minimum** limits are as follows:

- a. Minimum Limits of Liability:
 - i. \$2,000,000 – per occurrence Combined Single limit for Bodily Injury and Property Damage
- b. In addition, the following coverages should be included:
 - i. Owned, Hired, and Non-owned Automobile
 - ii. CA9948 Endorsement – Pollution Liability – Broadened
 - iii. MCS90 Endorsement

(NOTE: CA9948 and MCS90 Endorsement is required if service includes the transport of pollutants. Refer to MPCA Contractor and Subcontracting Purchasing Manual.)

Commercial General Liability Insurance: Contractor is required to maintain insurance protecting it from claims for damages for bodily injury, including sickness or disease, death, and for care and loss of services as well as from claims for property damage, including loss of use which may arise from operations under the Master Contract whether the operations are by the Contractor or by a subcontractor or by anyone directly or indirectly employed by the Contractor under the Contract. Insurance **minimum** limits are as follows:

- a. Minimum Limits of Liability:
 - i. \$2,000,000 – Per Occurrence
 - ii. \$2,000,000 – Annual Aggregate
 - iii. \$2,000,000 – Annual Aggregate – Products/Completed Operations
- b. The following coverages shall be included:
 - i. Premises and Operations Bodily Injury and Property Damage
 - ii. Personal & Advertising Injury
 - iii. Blanket Contractual Liability
 - iv. Products and Completed Operations Liability (If applicable)
 - v. State of Minnesota named as Additional Insured
 - vi. Waiver of subrogation in favor of the State of Minnesota

Pollution Liability Insurance: Contractor's Pollution Liability (or equivalent pollution liability coverage endorsed on another form of liability coverage, such as general liability or professional errors and omissions policy).

- a. Minimum Limits of Liability:
 - i. \$2,000,000 – Per Claim
 - ii. \$2,000,000 – Annual Aggregate
- b. Coverages:
 - i. Policy will include Non-Owned Disposal Site Pollution Liability.
 - ii. Policy will not contain a lead exclusion.
 - iii. Owner named as an Additional Insured.
 - vi. Waiver of subrogation in favor of the State of Minnesota

Professional/Technical, Errors and Omissions, and/or Miscellaneous Liability Insurance: This policy will provide coverage for all claims the Contractor may become legally obligated to pay resulting from any actual or alleged negligent act, error, or omission related to Contractor's professional services required under the Master Contract.

Contractor is required to carry the following **minimum** limits:

- \$2,000,000 – per claim or event
- \$2,000,000 – annual aggregate

Any deductible will be the sole responsibility of the Contractor and may not exceed \$50,000 without the written approval of the State. If the Contractor desires authority from the State to have a deductible in a higher amount, the Contractor shall so request in writing, specifying the amount of the desired deductible and providing financial documentation by submitting the most current audited financial statements so that the State can ascertain the ability of the Contractor to cover the deductible from its own resources.

The retroactive or prior acts date of such coverage shall not be after the effective date of this Master Contract and Contractor shall maintain such insurance for a period of at least three (3) years, following completion of the work. If such insurance is discontinued, extended reporting period coverage must be obtained by Contractor to fulfill this requirement.

Builder's Risk Insurance: The Contractor shall be responsible for providing and maintaining "All Risk" or equivalent Builder's Risk policy insuring the interest of the State, Contractor, and any tier of Subcontractor or the Contractor shall be responsible for requiring that their Subcontractor provide and maintain Builder's Risk policy insuring the interest of the State, Contractor, and any tier of Subcontractor. Coverage on an "All Risk" or equivalent basis shall include the perils of flood, earthquake and pollution cleanup expense. Builder's Risk limit of liability shall be equal to the construction cost. Any deductible shall be the sole responsibility of the Contractor and shall not exceed \$10,000 without the written approval of the State.

1. The Builder's Risk policy will cover all materials, supplies and equipment that are intended for construction and specific installation in the project while such materials, supplies and equipment are located at the project site, in transit and while temporarily located away from the project site for the purpose of repair, adjustment or storage at the risk of one of the insured parties.
2. Any property not covered by the Builder's Risk policy, such as the Contractor's or any tier of Subcontractor's licensed motor vehicles or personal property, including job trailers, machinery, tools, equipment and property of a similar nature not destined to become a part of the project, shall be the responsibility of the Contractor or Subcontractor at any tier, and such person or organization may self-insure or provide other insurance at its option for the same.
3. **Waiver of Liability.** Absent State or Architect sole negligence or breach of specific Contractual duty specifically and logically related to the damage or loss, the State or Architect will not be responsible for loss or damage to property of any kind owned, borrowed, rented or leased by the Contractor, Subcontractors of all tiers and/or the Contractor's/Subcontractors employees, servants or agents.
4. **Waivers of Subrogation.** The State and Contractor waive all rights against (1) each other and any of their Subcontractors of all tiers and (2) the Architect, and the Architect's Subcontractors of all tiers for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to the provisions of paragraph 31.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the State or Contractor as fiduciary. The State or Contractor, as appropriate, shall require of the Architect, and the Architect's Subcontractors of all tiers, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.
5. All losses and claims shall be immediately reported to the Contractor, State and applicable insurance carrier, under loss notice procedures as directed by the Contractor.

6. Any loss insured under Section 31.3 is to be adjusted with the Contractor and made payable to the Contractor as trustee for all insured parties, as their interests may appear, subject to the requirements of any applicable mortgage clause. The Contractor shall pay the State a just share of any insurance moneys received, and by appropriate agreement, written where legally required for validity, shall require the Contractor to make just share payments to the Subcontractors and lower tiered Sub-Subcontractors in similar manner.
7. Partial occupancy or use shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise.
8. **Boiler and Machinery Insurance.** The Contractor shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the State; this insurance shall include interests of the States, Contractor, Subcontractors and Sub-Subcontractors in the Work, and the State and Contractor shall be named insureds.

Loss of Use Insurance. The State, at the State's option, may purchase and maintain such insurance as will insure the State against loss of use of the State's property due to fire or other hazards,

C. Additional Insurance Conditions:

- Contractor's policy(ies) shall be primary insurance to any other valid and collectible insurance available to the State of Minnesota with respect to any claim arising out of Contractor's performance under this Master Contract;
- If Contractor receives a cancellation notice from an insurance carrier affording coverage herein, Contractor agrees to notify the State of Minnesota within five (5) business days with a copy of the cancellation notice, unless Contractor's policy(ies) contain a provision that coverage afforded under the policy(ies) will not be cancelled without at least thirty (30) days advance written notice to the State of Minnesota;
- Contractor is responsible for payment of Master Contract related insurance premiums and deductibles;
- If Contractor is self-insured, a Certificate of Self-Insurance must be attached;
- Contractor's policy(ies) shall include legal defense fees in addition to its liability policy limits, with the exception of B.4 above;
- Contractor shall obtain insurance policy(ies) from insurance company(ies) having an "AM BEST" rating of A-(minus); Financial Size Category (FSC) VII or better, and authorized to do business in the State of Minnesota; and
- An Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limits to satisfy the full policy limits required by the Master Contract.

D. The State reserves the right to immediately terminate the Master Contract if the Contractor is not in compliance with the insurance requirements and retains all rights to pursue any legal remedies against the Contractor. All insurance policies must be open to inspection by the State, and copies of policies must be submitted to the State's Authorized Representative upon written request.

E. The Contractor is required to submit Certificates of Insurance acceptable to the State of Minnesota as evidence of insurance coverage requirements prior to commencing work under the Master Contract.

Further, the Contractor certifies that it is in compliance with Minn. Stat. § 176.181, Subd. 2, pertaining to Workers' Compensation insurance coverage. The Contractor's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees or agents and any claims made by any third party as a consequence of any act or omission on the part of these employees or agents are in no way the State's obligation or responsibility.

39. GOVERNMENT DATA PRACTICES AND INTELLECTUAL PROPERTY

39.1 Government data practices. The Contractor and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, as it applies to all data provided by the State under any Work Order and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Contractor under the Work Order. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data referred to in this Clause, by either the Contractor or the State.

If the Contractor receives a request to release the data referred to in this Clause, the Contractor must immediately notify the State. The State will give the Contractor instructions concerning the release of the data to the requesting party before the data is released.

39.2 (A) Intellectual property rights.

The State owns all rights, title, and interest in all of the intellectual property rights, including copyrights, patents, trade secrets, trademarks, and service marks in the Works and Documents *created and paid for under Work Orders*. Works means all inventions, improvements, discoveries (whether or not patentable), databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, and disks conceived, reduced to practice, created or originated by the Contractor, its employees, agents, and Subcontractors, either individually or jointly with others in the performance of this Master Contract or any Work Order. Works includes "Documents." Documents are the originals of any databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, disks, or other materials, whether in tangible or electronic forms, prepared by the Contractor, its employees, agents, or Subcontractors, in the performance of a Work Order. The Documents will be the exclusive property of the State and all such Documents must be immediately returned to the State by the Contractor upon completion or cancellation of the Work Order. To the extent possible, those Works eligible for copyright protection under the United States Copyright Act will be deemed to be "works made for hire." The Contractor assigns all right, title, and interest it may have in the Works and Documents to the State. The Contractor must, at the request of the State, execute all papers and perform all other acts necessary to transfer or record the State's ownership interest in the Works and Documents

(B) Obligations:

1. **Notification:** Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived for the first time or actually or constructively reduced to practice by the Contractor, including its employees, agents, and Subcontractors, in the performance of the Work Order, the Contractor will immediately give the State's Authorized Representative written notice thereof, and must promptly furnish the State's Authorized Representative with complete information and/or disclosure thereon.

2. **Representation:** The Contractor must perform all acts, and take all steps necessary to ensure that all intellectual property rights in the Works and Documents are the sole property of the State, and that neither Contractor nor its employees, agents or Subcontractors retain any interest in and to the Works and Documents. The Contractor represents and warrants that the Works and Documents do not and will not infringe upon any intellectual property rights of other persons or entities. Notwithstanding Clause 24, the Contractor will indemnify; defend, to the extent permitted by the Attorney General; and hold harmless the State, at the Contractor's expense, from any action or claim brought against the State to the extent that it is based on a claim that all or part of the Works or Documents infringe upon the intellectual property rights of others. The Contractor will be responsible for payment of any and all such claims, demands, obligations, liabilities, costs, and damages, including but not limited to, attorney fees. If such a claim or action arises, or in the Contractor's or the State's opinion is likely to arise, the Contractor must, at the State's discretion, either procure for the

State the right or license to use the intellectual property rights at issue or replace or modify the allegedly infringing Works or Documents as necessary and appropriate to obviate the infringement claim. This remedy of the State will be in addition to and not exclusive of other remedies provided by law.

40. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION

Federal money will be used or may potentially be used to pay for all or part of the work under the Master Contract, therefore Contractor certifies that it is in compliance with federal requirements on debarment, suspension, ineligibility and voluntary exclusion specified in the solicitation document implementing Executive Order 12549. Contractor's certification is a material representation upon which the Master Contract award was based.

41. PUBLICITY AND ENDORSEMENT

41.1 Publicity. Any publicity regarding the subject matter of a Work Order must identify the State as the sponsoring agency and must not be released without prior written approval from the State's Authorized Representative. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Contractor individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from a Work Order. During State contracted work, the Contractor shall defer all interviews and requests for information from the media, private citizens or public officials to the State unless the State specifically requests the Contractor to handle such requests.

39.2 Endorsement. The Contractor must not claim that the State endorses its products or services

42. GOVERNING LAW, JURISDICTION, AND VENUE

Minnesota law, without regard to its choice-of-law provisions, governs this Master Contract and all Work Orders. Venue for all legal proceedings out of this Master Contract and/or any Work Order, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

43. DATA DISCLOSURE

Under Minn. Stat. § 270C.65, Subd. 3 and other applicable law, the Contractor consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and State agencies, and State personnel involved in the payment of State obligations. These identification numbers may be used in the enforcement of federal and State laws which could result in action requiring the Contractor to file State tax returns, pay delinquent State tax liabilities, if any, or pay other State liabilities.

44. NON-DISCRIMINATION (IN ACCORDANCE WITH MINN. STAT. § 181.59)

The Contractor will comply with the provisions of Minn. Stat. § 181.59 which requires:

Every contract for or on behalf of the State of Minnesota, or any county, city, town, township, school, school district, or any other district in the State, for materials, supplies, or construction shall contain provisions by which the Contractor agrees: (1) That, in the hiring of common or skilled labor for the performance of any work under any contract, or any subcontract, no contractor, material supplier, or vendor, shall, by reason of race, creed, or color, discriminate against the person or persons who are citizens of the United States or resident aliens who are qualified and available to perform the work to which the employment relates; (2) That no contractor, material supplier, or vendor, shall, in any manner, discriminate against, or intimidate, or prevent the employment of any person or persons identified in clause (1) of this section, or on being hired, prevent, or conspire to prevent, the person or persons from the performance of work under any contract on account of race, creed, or color; (3) That a violation of this section is a misdemeanor; and (4) That this Master Contract may be canceled or terminated by the State, county, city, town, school board, or any other person authorized to grant the contracts for employment, and all money due, or to become due under the Master Contract, may be forfeited for a second or any subsequent violation of the terms or conditions of this Master Contract.

45. STANDARD OF WORK

The Contractor shall comply with the terms of this Master Contract and Work Orders, Change Orders, Work Order Amendments, and Stop Work Orders from the State. The State shall not approve, and no payment shall be made for, work that does not meet these standards. The State reserves the right to request that any data deliverables improperly formatted be corrected before the submittal will be accepted. Any extra expenses incurred due to such edits will be the Contractor's responsibility.

Unless the Force Majeure clause applies, failure to meet such deadline dates shall be a basis for a determination by the State's Authorized Representative that the Contractor has not complied with the terms of the Master Contract.

46. FORCE MAJEURE

Failure to meet time lines established in Work Orders, Change Orders, Work Order Amendments, and Stop Work Orders when caused by acts of God, war, strike, riot or other catastrophe or by acts or omissions of the State or the State's Authorized Representative, or by other reasons beyond the reasonable control of the Contractor, which are not due to negligence or lack of diligence on the Contractor's part, and which occur despite the Contractor's good faith efforts to meet the time lines, shall not be considered to be noncompliance with the Master Contract if the Contractor promptly notifies the State's Authorized Representative of the failure to meet the time lines and the reasons therefore and takes all necessary steps to bring about compliance as soon as practicable.

The Contractor shall have the burden of proof that the failure to meet the schedule was caused by events beyond the reasonable control of the Contractor which could not have been overcome by due diligence. In the event of such interruptions or delays, the date for completion of the Work Order shall be extended for a period of time equal to that of the interruption or delay.

47. PERFORMANCE DEADLINES

The Contractor must comply with all of the time requirements described in this Master Contract. In addition to any other remedy authorized by this Master Contract, the State may elect to invoke the liquidated damages remedy provided in this part.

If the Contractor misses a deadline, and if the Force Majeure clause does not apply, the State's Authorized Representative shall send the Contractor a written notice that a deadline has been missed and that in no sooner than ten (10) days a second written notice shall be sent. No sooner than ten (10) days after the initial written notice, unless the matter has been resolved, the State's Authorized Representative shall send the Contractor a second written notice stating that liquidated damages pursuant to this Master Contract shall begin to accrue twenty (20) days after receipt of the second notice. If pursuant to the Change Order clause or the Work Order Amendments clause of this Master Contract a request for extension has been received and if the State considers the extension request reasonable and the delay does not substantially affect the public interest, the State shall issue a Change Order or Work Order Amendment with the new deadline. If the State considers the request unreasonable, or if a delay would substantially affect the public interest, the State shall not extend the performance deadline.

The Contractor shall pay the State liquidated damages in the amount of \$3,000, or 5% of the budget amount authorized in the Work Orders from the State, whichever is less, per week beginning twenty (20) days after the Contractor receives a second written notice of the deadline violation and ending when the performance is complete. The State may also deduct the liquidated damages from its payments to the Contractor under this Master Contract.

48. USE OF STATE CONTRACTS

Contractors and Subcontractors may provide oversight to State Contractors as appropriate, or the State may directly use the State Contractors.

49. FOREIGN OUTSOURCING

Contractor agrees all services under this contract shall be performed within the borders of the United States. All storage and processing of information shall be performed within the borders of the United States. This provision also applies to work performed by subcontractors at all tiers.

50. AFFIRMATIVE ACTION

Affirmative Action Requirements for Contracts in Excess of \$100,000 and if the Contractor has More than 40 Full-time Employees in Minnesota or its Principal Place of Business

The State intends to carry out its responsibility for requiring affirmative action by its Contractors.

50.1 Covered Contracts and Contractors. If the Contract exceeds \$100,000 and the Contractor employed more than 40 full-time employees on a single working day during the previous 12 months in Minnesota or in the state where it has its principle place of business, then the Contractor must comply with the requirements of Minn. Stat. § 363A.36 and Minnesota Rule Parts 5000.3400-5000.3600. A contractor covered by Minn. Stat. § 363A.36 because it employed more than 40 full-time employees in another state and does not have a certificate of compliance, must certify that it is in compliance with federal affirmative action requirements.

50.2 Minn. Stat. § 363A.36. Minn. Stat. § 363A.36 requires the Contractor to have an affirmative action plan for the employment of minority persons, women, and qualified disabled individuals approved by the Minnesota Commissioner of Human Rights (“Commissioner”) as indicated by a certificate of compliance. The law addresses suspension or revocation of a certificate of compliance and contract consequences in that event. A contract awarded without a certificate of compliance may be voided.

50.3 Minnesota Rule Parts 5000.3400-5000.3600.

- A. *General.* Minnesota Rule Parts 5000.3400-5000.3600 implement Minn. Stat. § 363A.36. These rules include, but are not limited to, criteria for contents, approval, and implementation of affirmative action plans; procedures for issuing certificates of compliance and criteria for determining a contractor’s compliance status; procedures for addressing deficiencies, sanctions, and notice and hearing; annual compliance reports; procedures for compliance review; and contract consequences for non-compliance. The specific criteria for approval or rejection of an affirmative action plan are contained in various provisions of Minnesota Rule Parts 5000.3400-5000.3600 including, but not limited to, parts 5000.3420-5000.3500 and 5000.3552-5000.3559.
- B. *Disabled Workers.* The Contractor must comply with the following affirmative action requirements for disabled workers.
 1. The Contractor must not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled persons without discrimination based upon their physical or mental disability in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
 2. The Contractor agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
 3. In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minn. Stat. § 363A.36, and the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
 4. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the commissioner of the Minnesota Department of Human Rights. Such notices must state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled employees and applicants for employment, and the rights of applicants and employees.
 5. The Contractor must notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of

Minn. Stat. § 363A.36, of the Minnesota Human Rights Act and is committed to take affirmative action to employ and advance in employment physically and mentally disabled persons.

- C. *Consequences.* The consequences for the Contractor's failure to implement its affirmative action plan or make a good faith effort to do so include, but are not limited to, suspension or revocation of a certificate of compliance by the Commissioner, refusal by the Commissioner to approve subsequent plans, and termination of all or part of this Master Contract by the Commissioner or the State.
- D. *Certification.* The Contractor hereby certifies that it is in compliance with the requirements of Minn. Stat. § 363A.36 and Minnesota Rule Parts 5000.3400-5000.3600 and is aware of the consequences for noncompliance.

51. TESTIMONY

If requested by the State's Authorized Representative, the Contractor agrees to testify at any State, federal, judicial or administrative proceeding brought by federal or State agencies or by a political subdivision of the State in which the work performed under this Master Contract is relevant. The Contractor agrees to meet and cooperate with the State's legal counsel as necessary to prepare for such testimony, and if so requested by the State's Authorized Agent, the Contractor shall prepare written testimony, graphs, diagrams or other visual aids to be used by the State in the proceeding(s). The Contractor shall be reimbursed at the rates for participation in State or federal judicial or administrative proceedings as specified in the Classifications and Rates.

52. ANTITRUST

The Contractor shall assign to the State any and all claims for overcharges as to goods or services provided in connection with this Contract resulting from antitrust violations which arise under the antitrust laws of the United States or the antitrust laws of the State.

53. E-VERIFY CERTIFICATION (IN ACCORDANCE WITH MINN. STAT. §16C.075)

For services valued in excess of \$50,000, Contractor certifies that as of the date of services performed on behalf of the State, Contractor and all its Subcontractors will have implemented or be in the process of implementing the federal E-Verify program for all newly hired employees in the United States who will perform work on behalf of the State. Contractor is responsible for collecting all Subcontractor certifications and may do so utilizing the E-Verify Subcontractor Certification Form available at <http://www.mmd.admin.State.mn.us/doc/VerifySubCertForm.doc>. All Subcontractor certifications must be kept on file with Contractor and made available to the State upon request.

54. Certification of Nondiscrimination (In accordance with Minn. Stat. § 16C.053)

The following term applies to any contract for which the value, including all extensions, is \$50,000 or more: Contractor certifies it does not engage in and has no present plans to engage in discrimination against Israel, or against persons or entities doing business in Israel, when making decisions related to the operation of the vendor's business. For purposes of this section, "discrimination" includes but is not limited to engaging in refusals to deal, terminating business activities, or other actions that are intended to limit commercial relations with Israel, or persons or entities doing business in Israel, when such actions are taken in a manner that in any way discriminates on the basis of nationality or national origin and is not based on a valid business reason.

[Signatures as required by the State]

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: Terracon Consultants Inc.

Authorized Representative (Please Print) David Wolfgram

Authorized Signature: [Signature]

Date: 3/12/18

Subscribed and sworn to me this 12th day of March

Notary Public Signature: [Signature]

My commission expires: 1/31/2022



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. 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.

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: Terracon Consultants, Inc. Date 3/13/18
Authorized Signature: *Danette Smith* Telephone number: 913-577-0435
Printed Name: Danette Smith Title: Corporate HR Coordinator

For assistance with this form, contact:

Minnesota Department of Human Rights, Compliance Services

Web: <http://mn.gov/mdhr/>

Email: compliance.mdhr@state.mn.us

TC Metro: 651-539-1095

Toll Free: 800-657-3704

TTY: 651-296-1283



Minnesota Department of
HUMAN RIGHTS

CERTIFICATE OF COMPLIANCE

TERRACON CONSULTANTS INC is hereby certified as a contractor by the Minnesota Department of Human Rights. This certificate is valid from 8/20/2014 to 8/19/2018.

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".

Kevin M. Lindsey, Commissioner

AN EQUAL OPPORTUNITY EMPLOYER

Freeman Building • 625 Robert Street North • Saint Paul, Minnesota 55155
Tel 651.539.1100 • MN Relay 711 or 1.800.627.3529 • Toll Free 1.800.657.3704 • Fax 651.296.9042 • mn.gov/mdhr

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.

Terracore Consultants, Inc.
Organization Name

David Wolfgram Principal
Name and Title of Official Signing for Organization

By: David Wolfgram
Signature of Official

3/12/18
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.

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.

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.

Signature table with fields: Authorized Signature, Printed Name, Title, Organization, MN/FED Tax ID#, Date, Issuing Entity, Project # or Lease Address.



Minnesota Department of
HUMAN RIGHTS

CERTIFICATE OF **EQUAL PAY**

TSVC INC (TERRACON CONSULTANTS) is hereby awarded a Certificate of Equal Pay by the Minnesota Department of Human Rights. This certificate is valid from August 15, 2014 to August 14, 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**

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.

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: Terracon Consultants Inc Date: 3/12/18
Authorized Signature: David Wolfgram Telephone: 651.770.1500
Printed Name: David Wolfgram Title: Principal

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