MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

Workplan

Project Title: Category C: Closed Landfill Scenario

1. Project Summary:

The owner/operator of a closed landfill wishes to enter the MPCA's Closed Landfill Program. The site meets the definition of a qualified facility according to the Landfill Cleanup Act. It began as a non-permitted dump in 1965 but was permitted by the MPCA in 1972 for the disposal of municipal solid waste. The landfill closed in 1983.

The landfill is in rural Minnesota near a growing city whose east boundary is adjacent to the landfill parcel. A residential housing development exists west of the landfill with the closest homes being about 150 feet from the landfill property boundary. Another residential development is located about a half-mile south along a mid-sized river which flows east. Both developments are served by municipal water and sewer but not all residents were required to connect to city water; some residents still have shallow wells for irrigation purposes. Approximately a quarter mile to the east is a farm that has a private drinking water well that also supplies water to about 75 cattle. The depth of the well is unknown. The City's comprehensive plan guides the city for additional residential development south and west of the landfill, between the existing developments and the landfill.

The Closed Landfill Program is seeking additional information about site conditions before it accepts the landfill into the program and takes over its long-term care. The program is also interested in a long-term remedy for the landfill itself to best protect human health, safety, and the environment.

2. Statement of Problems, Opportunities, and Existing Conditions

The landfill's waste footprint is about 30 acres, but its waste volume is unknown. During the landfill's operation, waste was placed very near the east, south, and west property boundaries – within 20 feet in many locations. The existing landfill cover is rather flat and ponding occurs in multiple locations. It is speculated that the cover material across the site is inconsistent. In fact, some of the cover along the south side is rumored to be gravel. Twenty passive gas vents are scattered across the cover, but the farmer that grows corn on the adjacent property east of the landfill claims his corn within 30 feet of the landfill property grows poorly.

A limited remedial investigation was conducted after the site closed and VOCs and metals were detected at elevated concentrations, some exceeding health risk limits near the landfill. However, few monitoring points were installed further away from the site. Because the landfill is beyond its post-closure care period, monitoring in recent years has been limited. A few residents south of the landfill have complained to the City about "strange odors" emanating from their irrigation wells. Boring logs indicate that the geology is glacial till with sand layers intermixed with clay.

Based on the information provided, Bay West has identified problems and data gaps associated with the Site. Prior to acceptance into the Closed Landfill Program, Bay West recommends assessment of these data gaps with the final objective being to determine an appropriate long-term remedy for the landfill that will be protective of human health and the environment. The data gaps identified based on the information provided include the following:

1. Unknown extent of waste and unknown waste volume: There is a lack of understanding of the vertical and lateral extent of landfill waste at the Site. The extent and estimated waste volume must be better understood to assess the risk to nearby receptors and evaluate long-term remedies.

2. Existing cover condition: The existing cover of the landfill is described as "rather flat" with areas of ponding. The landfill cover plays an extremely important role in limiting the potential for incidental exposure to landfill waste, preventing migration of waste outside the footprint of the landfill, and inhibiting infiltration of precipitation. A poor quality or non-existent landfill cover may expose waste to the elements resulting in runoff of contaminated water and wind-transport of contaminated sediment away from the landfill footprint. The condition of the existing cover must be evaluated to assess its effectiveness.

3. Vapor generation and migration potential: Decomposition of landfill waste can result in the production of gases such as methane and hydrogen sulfide. Past disposal of solvents, petroleum products and other industrial chemicals may also result in chemical vapor risks to nearby receptors. The extent and magnitude of gas generation within the landfill and vapor migration potential must be understood to assess the vapor intrusion risk to nearby structures and proposed developments near the landfill. The distressed crops are an indication

of potential methane migration in this direction, which may mean that the existing passive methane vents are not working. Migration of methane at concentrations exceeding 10% of the lower explosive limit (LEL) requires mitigation.

4. Groundwater quality and risk to receptors: Landfill waste can generate leachate that may contaminate the local groundwater and surface water. Groundwater quality at and near the landfill must be evaluated to assess the risk to nearby water well and surface water body receptors. As describe above in bullet #2, the landfill cover must be evaluated to assess its effectiveness at preventing precipitation infiltration, runoff and wind transport of waste that may impact nearby surface water bodies.

Scenario Assumptions

Bay West has made the following assumptions with respect to this scenario:

- Previous investigation activities did not define the lateral or vertical extent of landfill waste.
- The landfill has an area of 30 acres and is roughly square, with dimensions of approximately 1,100 x 1,100 feet. Waste covers approximately ¾ of the site; significant investigation within the middle of the waste area is not necessary.
- No off-site waste deposition has been occurring.
- Previous groundwater sampling did not adequately delineate the extent or magnitude of groundwater contamination associated with the landfill. Sampling for per- and poly-fluorinated substances (PFAS) has not been conducted.
- No vapor assessment has been completed to evaluate the risk to nearby receptors.
- There are three homes located within 150 feet of the west side of the landfill. These homes each have footprints less than 1,000 ft^2.
- There are three private wells west of the landfill. These wells are not used for drinking water; they are used for irrigation only. There are also two irrigation wells south of the landfill.
- The local surficial aquifer is 20 to 25 feet below grade
- The bedrock aquifer is over 100 feet below grade within dolomite and sandstone.
- The site is located 30 miles from a Bay West office.

3. Goals, Objectives, Tasks, and Subtasks

Bay West has developed the following objectives to assess the problems outlined above with the primary goal of ensuring the landfill does not pose an unacceptable risk to human health and environment. A secondary goal may be to facilitate land use planning and the potential beneficial reuse of the landfill area.

Objective 1: Obtain Access and Evaluate Site History

Task A: Obtain Site Access

Bay West will work with the MPCA to identify on- and off-site property owners and begin the process of obtaining property access using the standard MPCA access agreement (c-rem4-01). If a property owner is not cooperating or responding, Bay West will work with the MPCA (and the Minnesota Attorney General's office, if needed) to gain access to the property.

Specific property access activities may include:

- Obtain contact information for the neighboring property owners on Block 5 and Block 7 either from the MPCA or from County tax records via the internet;
- Assist the MPCA by preparing the standard MPCA agreement for each property;

Following initial contact with property owners by the MPCA, Bay West will conduct follow up interviews for current information regarding any other health or environmental concerns pertaining to their property. If contact information is available, Bay West will reach out to parcel owners, communicate the need for access, and email and mail access agreement for signature or establish time for signature during initial Site mobilization.

Task B: Phase I Environmental Site Assessment

To gain an understanding of the landfill and surrounding area history, under Objective 1 Bay West will complete a Phase I Environmental Site Assessment (ESA) in general accordance with ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process. Our Phase I will include a comprehensive search of publicly available records, aerial photographs, and other data sources, a review of all applicable files at the MPCA, and interviews with individuals familiar with the landfill historical operations as well as with local municipal and government staff.

Objective 1 Timeline: Bay West will complete Objective 1 within 30 days of receiving notice to proceed.

Objective 1 Deliverables: The deliverable associated with Objective 1 will be a Phase I ESA report.

Objective 2: Evaluate the Landfill Cover and the Extent/Volume of Landfill Waste

Prior to implementation of any field activities on the landfill site, Bay West would develop a SSHP that would govern all project field work. Bay West will utilize only 40-hour HAZWOPER trained employees with their current 8-hour refresher.

Task A: Landfill Cover Topography Evaluation

Because the landfill cover plays a critical role in containing waste, protecting the public from exposure to waste from runoff and wind-blown deposition, and inhibiting infiltration of precipitation, Bay West proposes to assess the topography and overall condition of the existing landfill cover. This evaluation will be completed in two subtasks, Subtask 1 will be completing a topographic survey of the landfill, and Subtask 2 will be collection of georeferenced high-resolution aerial imagery of the landfill.

Subtask 1: Topographic Survey

Bay West will contract with a state contractor professional survey firm licensed in the state of Minnesota to complete a topographic survey of the landfill. The survey will be referenced to the state plane coordinate system and include a legal description of the site boundaries, maximum 1-foot topographic contours, and the location and identification of other significant features within the footprint of the landfill. The goal of the topographic survey is to obtain highly accurate cover topography to identify low areas (susceptible to infiltration) and erosion and drainage features. The topographic survey will be combined in a site GIS with the geophysical data to aid in evaluating the landfill cover and lateral extent of landfill waste. Bay West will evaluate the landfill cover against the MPCA's Landfill Slope Guidance dated May 28, 2002.

Subtask 2: High-resolution Aerial Imagery

Bay West will utilize our remotely piloted drone to collect high-resolution aerial imagery of the landfill. The drone will be pre-programmed to fly a series of transects across the landfill and neighboring areas. The resulting aerial imagery will be downloaded and georeferenced to real-world coordinates using ArcGIS Drone2Map software. The drone imagery will then be combined in the project GIS with the topographic survey data and geophysical data to aid in evaluating the landfill cover and lateral extent of landfill waste.

Task B: Geophysical Assessment

Bay West proposes to assess the extent and depth of landfill waste at the site using magnetic anomaly/electrical conductivity and metal detection geophysical methods. These geophysical technologies allow for the non-intrusive assessment of lateral and vertical extent landfill waste by assessing the subsurface properties of the landfill materials and native soil with the goal of depicting the lateral extent of anomalies or buried waste. Because the landfill is currently vacant open space, the site is suited particularly well to the use of geophysics due to lack of surface structures which can interfere with geophysical data collection and interpretation. **Figure 2** illustrates the area of the proposed geophysical grid across the assumed landfill footprint. Bay West assumes that the geophysical data collection will be completed by a State contractor. Bay West will develop the geophysical assessment specification and work with the MPCA project manager to procure the services using the MPCA Contractor and Subcontractor Purchasing Manual (February 2018). We will take care to clarify the specific services that the contractor will conduct and that Bay West will conduct to avoid any conflict with the Department of Administration regarding professional services.

Subtask 1: EM31 Soil Conductivity and Magnetic Survey

Bay West proposes to conduct an EM31 survey across the assumed footprint of the landfill and extending slightly beyond the approximate landfill footprint to assess the lateral extent of landfill waste. The EM31 instrument is a towed array instrument that will be pulled across the landfill surface on a trailer using an ATV

on approximately 5-meter transects. Magnetic and conductivity data will be collected using an onboard datalogging system tied to a sub-meter global positioning system (GPS) to allow the conductivity and magnetic anomaly data to be plotted in real-world coordinates and overlain on aerial imagery of the landfill.

Subtask 2: EM61 Metal Detection Survey

Because landfills often contain metallic objects, metal detection geophysical methods are often effective at assessing the lateral extent of landfill waste and are effective at identifying large ferrous objects such as buried drums, tanks, or demolition debris. Metal detection data will be collected using the EM61-MK2 instrument towed by behind an ATV on approximately 2 meter transects which should allow for the clear identification of metallic waste with the landfill. Typically, the EM61-MK2 can detect a buried metal drum at depths greater than 2 to 3 meters and a 1-inch diameter metal pipe at depths up to 1.3 meters.

Subtask 3: Geophysical Data Interpretation

Following collection of the geophysical data, Bay West will create a spatial layer model in GIS software and Krige the conductivity survey data points to create map layers of both the near-surface soil conductivity and apparent magnetic susceptibility. These "heat" maps will graphically depict the location and lateral extent of subsurface anomalies. By extending the limits if the survey beyond the assumed lateral extent of landfill waste, Bay West should be able to clearly define the lateral extent of landfill waste.

Task C: Soil Borings and Test Pits

Geophysical techniques are often quite effective at assessing the lateral extent of landfill waste; however, these techniques do not always reliably delineate the vertical extent of waste. To accomplish vertical delineation of landfill waste, Bay West proposes a program of test borings and test trenches across the assumed landfill footprint and around its perimeter to assess the vertical (and lateral) extent of waste. This soil boring and test trench data coupled with the geophysical data should allow for accurate estimating of the lateral and vertical extent and waste and calculation of the total landfill waste volume.

Subtask 1: Test Trenches

Soil borings typically work well to evaluate the landfill waste profile and thickness; however, the lateral extent of waste, especially at the margins of the landfill are best evaluated by direct observation with test trenches. To assess the lateral extent of waste at the landfill margins and cover thickness, Bay West proposes to complete test trenches around the perimeter of the assumed waste material footprint, as roughly defined by the geophysical assessment. Proposed test trench locations are illustrated on **Figure 2**. Bay West has equipment operators on staff, so we will self-perform the excavation work using Bay West staff and rented excavation equipment procured in accordance with the state purchasing manual. Each test trench will be excavated using a trackhoe excavator to a depth sufficient to assess the presence or absence of landfill waste and the depth of observed waste. Bay West assumes each test trench will be approximately 15 feet long, 4 feet wide, and up to 12 feet deep. Specifically, Bay West proposes to:

- Complete approximately 16 test trenches to depths of approximately 12 feet bgs to penetrate the full landfill profile and encounter underlying native soil. Five test trenches will be completed on each of the four sides of the landfill. They will each begin in non-waste areas and be excavated towards the waste materials to define the edge of the material and further clarify the geophysical assessment results.
- Log the lithology and waste observed in each test pit using the USCS soil classification method. Screen soil excavated in each test pit for organic vapors with a photoionization detector (PID). A combustible gas indicator will also be used to monitor explosive gas conditions and organic vapors potentially emanating from the subsurface during test pitting activities.
- Collect one soil sample from each test pit from the soil interval with the highest organic vapor reading, or if no organic vapors are detected exceeding 10 parts per million (ppm), the soil samples will be collected from intervals exhibiting the presence of landfill waste.
- The soil samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PCBs, PAHs, and RCRA 8 metals.
- Following excavation, each test trench will be backfilled with its original soil and track and bucket compacted with the excavator to original grade.

Subtask 2: Hollow Stem Auger Borings

To assess the landfill cover and thickness, characterize the landfill waste, and evaluate the vertical thickness of landfill waste, Bay West proposes to advance 16 soil borings on an approximately 275-foot spaced grid across the footprint of the landfill using 4 ¼-inch ID hollow stem augers. The proposed boring locations are illustrated on **Figure 2**. Bay West will procure drilling services and laboratory services by developing the drilling and lab specifications and requesting quotes from state contract drilling firms and laboratories using the State Contract Order Form (SCOF). We've selected the hollow stem auger drilling method because this drilling method will penetrate waste and debris more easily than direct-push drilling methods and the volume of cuttings allows for better evaluation of encountered waste. An added benefit of HSA drilling is the collection of blow counts which can be used to measure geotechnical data, including the bearing capacity of the landfill materials to help evaluate the long-term remedial approach and the potential for beneficial reuse of the landfill property. The test boring data will be evaluated against the MPCA's Final Cover Construction guidance #5.09 dated June 2009. Specifically, Bay West proposes to:

- Advance 12 soil borings to depths of approximately 35 feet bgs to penetrate the full landfill profile and encounter underlying native soil.
- Continuously log the lithology and waste observed in the soil borings using the USCS soil classification method. Bay West will closely evaluate and continuously screen and log the top 2 to 3 feet of the landfill profile to evaluate the type and thickness of the landfill cover. Screen the soil borings for organic vapors with a photoionization detector (PID). A combustible gas indicator will also be used to monitor explosive gas conditions and organic vapors potentially emanating from the subsurface during drilling activities.
- Collect two soil samples from each soil boring from the 4-5 ft bgs interval and from the soil interval with the highest organic vapor reading, or if no organic vapors are detected exceeding 10 part per million (ppm), the soil samples will be collected from intervals exhibiting the presence of landfill waste.
- The soil samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PCBs, PAHs, and RCRA 8 metals.
- Set temporary 2-inch diameter well screens in four of the soil borings for the collection of groundwater samples centrally located within the landfill footprint. Submit the groundwater samples for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen, total Kjeldahl nitrogen, and PFAS. Bay West has extensive experience sampling for PFAS in groundwater and understands the technical challenges associated with collecting representative first-round samples for PFAS analysis to show the presence or absence of these compounds. We've generated our own internal SOPs that govern PFAS sampling and analysis procedures and our field staff are experienced with the procedures and the unique equipment requirements. PFAS results during this initial investigation phase will determine the need for PFAS sampling in future activities. For this scenario, Bay West has assumed that PFAS will not be detected in the four groundwater samples collected within the landfill footprint; therefore, we will not propose additional PFAS sampling in later tasks. We are analyzing the water samples for PCBs - it is uncommon for PCBs to be detected in groundwater samples, as these compounds are relatively immobile in the subsurface.

Subtask 3: Near-Surface Soil Evaluation

The farmer that utilizes the field east of the landfill has reported that his crops grow poorly in an area east of and immediately adjacent to the landfill. Poor plant growth can be a result of many factors, including off-site methane gas migration or soil contamination. To begin evaluation of this area, Bay West proposes the following activities:

- Meet with the land owner to identify the area of concern in the farm field.
- Complete a site reconnaissance to assess the landfill condition adjacent to this area and evaluate if runoff from the landfill may be affecting plant growth.
- Collect three near-surface 5-point composite soil samples in the distressed vegetation area for laboratory analysis of GRO, DRO, VOCs, PCBs, PAHs, RCRA 8 metals, MDA List 1 and List 2 pesticides, nitrate-nitrogen, and total Kjeldahl nitrogen. These composite samples will be collected following Minnesota Department of Agriculture guidance document GD 11.

Objective 2 Timeline: Bay West will complete Objective 2 within 60 days of receiving notice to proceed, analytical data will be available approximately two weeks following sample collection.

Objective 2 Deliverables: The deliverables associated with Objective 2 will be boring and test pit logs, photographic logs, field screening results, analytical data, a site topographic survey, georeferenced high-resolution aerial imagery, cross-section maps, and possibly a 3-dimensional visualization of the cover and landfill debris. This information will be provided initially to the MPCA project manager as an email tech memo and incorporated into the final comprehensive project report.

Objective 3: Assess Landfill Gas Generation and Soil Gas Migration Potential

Bay West views the distressed crops as evidence that off-site methane migration from the landfill is likely occurring. To assess the magnitude of decomposition gas generation and the presence of VOCs in the subsurface, Bay West proposes to conduct a soil gas assessment in three tasks. Task A will involve soil-gas sampling within the area of distressed crops, Task B will involve sub-slab sampling within the three residential homes 150 feet west of the landfill, and Task C includes installation of permanent soil gas monitoring points on all four edges of the landfill property line as compliance points.

This work plan does not include. Sub-slab sampling may be completed following collection of receptor-specific soil gas samples, evaluation of vapor intrusion pathway, and assessment of the vapor intrusion risk in accordance with MPCA guidance document c-rem3-06e, Best management practices for vapor investigation and building mitigation decisions.

Task A: Soil Gas Sampling

To assess the potential for landfill decomposition gas migration into the area of distressed crops, Bay West proposes the following:

- Collect six soil gas samples within the area of distressed vegetation. Bay West will procure direct-push drilling services from state contract drilling firms using the SCOF. Soil gas samples will be collected at 8 to 10 feet bgs. Soil gas samples will be collected using batch-certified 1-liter summa canisters equipped with 200 ml/min flow controllers. The soil-gas sampling locations are illustrated on **Figure 3**.
- Submit the soil gas samples for laboratory analysis of VOCs by EPA Method TO-15 and the Minnesota Soil Gas List, using the MPCA Subcontracting Purchasing Manual.
- Perform landfill gas monitoring for total % and % LEL of methane, % O_2, % CO_2, static pressure, and differential pressure using a landfill gas field meter at the six soil gas sampling locations.

Task B: Sub Slab Sampling

The landfill is located approximately 150 feet east of three residential homes. To assess the potential for landfill decomposition gas and VOC intrusion at these homes, Bay West proposes the following:

- Conduct sub-slab sampling and QA/QC within the three residences in accordance with guidance documents Best Management Practices for Vapor Investigation and Building Mitigation Decisions (c-rem3-06e). Sub-slab vapor samples with be collected in 1-liter stainless steel canisters equipped with 200 milliliters per minute (mL/min) flow controllers. Each vapor sample canister will be individually certified by a State contract analytical laboratory. If these residences each have a footprint of less than 1,000 ft^2, Bay West assumes that we'll collect two samples from each residence.
- Submit the six samples for laboratory analysis of methane, % O_2, % CO_2, and VOCs by EPA Method TO-15 and the Minnesota Soil Gas List.
- Perform field monitoring for total % and % LEL of methane, % O_2, % CO_2, static pressure, and differential pressure using a landfill gas field meter at the sub-slab sampling locations.
- Evaluate the VOC data against current MPCA vapor intrusion BMP guidance c-rem3-06e and the landfill gas data against MPCA guidance document c-rem3-04 to determine the next steps.

Task C: Permanent Soil Gas Monitoring Points

To assess the magnitude of landfill decomposition gas generation adjacent to and within the landfill, Bay West proposes the following:

- Install 12 permanent soil gas monitoring points, four on the west side of the landfill, four on the south side of the landfill, two on the north side, two on the east side. The proposed permanent soil gas monitoring point locations are illustrated on **Figure 3**. The soil gas monitoring points will be installed to an approximate depth of 12 feet bgs using direct push technology. Because of the rural location of the landfill, the permanent monitoring points will be completed with above-grade protective casings equipped with locking caps. Bay West will develop the soil gas point specifications based on the data obtained in Objective 2 and procure the drilling and installation services using state contract drilling firms and the SCOF.
- Collect 12 soil gas samples from the permanent monitoring points for laboratory analysis of VOCs by EPA Method TO-15 and the Minnesota Soil Gas List.
- Perform landfill gas monitoring for total % and % LEL of methane, % O_2, % CO_2, static pressure, and differential pressure using a landfill gas field meter at the 12 soil gas monitoring points. This scope of work includes two monthly landfill gas monitoring events, one immediately after the points are installed and a second event approximately 30 days later. Typically, landfill gas monitoring is completed monthly during the winter months (November through April) and quarterly during the summer months.
- Perform landfill gas monitoring using four of the existing passive vents within the landfill footprint. Bay West will evaluate the passive vent construction and, if feasible, fabricate a temporary cap and sampling port to install on each of the vents to allow for landfill gas sampling. The passive vents for sampling will be chosen to obtain representative aerial coverage across the landfill.

Objective 3 Timeline: Bay West will complete Objective 3 within 30 days of receiving notice to proceed, analytical data will be available approximately two weeks following sample collection.

Objective 3 Deliverables: If any vapor risks are identified (especially to the three residences west of the landfill), Bay West will immediately discuss these results with the MPCA and immediately begin the process for installation of sub-slab depressurization systems in applicable residences. Other deliverables associated with Objective 3 will be tables of soil gas screening results and analytical laboratory reports and data summary tables. This information will be provided initially to the MPCA project manager as an email tech memo and incorporated into the final comprehensive project report.

Objective 4: Groundwater Quality Evaluation and Risk to Receptors

Bay West understands that there is a limited amount of groundwater quality data available for the landfill site. To assess the groundwater quality associated with the landfill and risk to nearby receptors Bay West proposes to evaluate groundwater in the landfill area in three tasks. Task A will be completion of a comprehensive groundwater receptor survey, Task B will include sampling all available nearby private wells and the existing three monitoring wells, and Task C will include collecting additional groundwater delineation samples using direct-push technology.

Task A: Groundwater Receptor Survey

Under this task Bay West will conduct a comprehensive groundwater receptor survey, this activity will include the following activities:

- Conduct a well search using available databases including the Minnesota Well Index and local municipal and county records for all water wells within ½-mile of the landfill.
- Complete a receptor survey by mail by sending questionnaire postcards out to all property owners within ½-mile. Based on the postcard survey, Bay West will also conduct a door-to-door well receptor survey with ½-mile of the landfill.
- Verify with city records if receptors within ½-mile of the landfill are connected to city water.
- Obtain and review construction details of wells identified in the receptor survey within ½-mile of the landfill, if available.

Task B: Sample Existing Monitoring Wells and Nearby Private Wells

As previously discussed, Bay West will be analyzing our groundwater samples collected within the waste area during our initial investigation for PFAS. If PFAS was detected during that investigation, the monitoring well and private well samples would also be analyzed for PFAS. The remainder of this workplan assumes that PFAS were not detected during the initial investigation.

To assess groundwater quality near and adjacent to the landfill Bay West will conduct the following activities:

- Measure depth to groundwater at the three existing monitoring wells and if necessary, survey their top of casing elevations, to evaluate groundwater flow direction in the surficial aquifer.
- Collect groundwater samples from the three previously installed monitoring wells located northwest, southeast, and southwest of the landfill. Because the wells have not been sampled for an extended period, Bay West will develop each well prior to sample collection by surging the wells with a block and pumping them with a submersible pump until groundwater runs clear and field water quality parameters have stabilized. After development, the wells will be allowed to equilibrate prior to being sampled with a peristaltic pump. The monitoring well samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen, TKN.
- Work with the MPCA project manager to obtain access to sample the three identified irrigation wells associated with residential properties west of the landfill. Upon receiving access, collect water well samples from each well. The water samples will be collected from an available discharge location after allowing the water to run for 10 to 15 minutes. The irrigation well samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen and TKN.
- Work with the MPCA project manager to obtain access to sample the two irrigation wells identified south of the landfill. Upon receiving access, collect water well samples from each well from an available discharge location. The irrigation well samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen and TKN.
- Work with the MPCA project manager to obtain access to sample the private drinking water well located on the farm east of the landfill. Upon receiving access, collect a water well sample from the well from an available discharge location. The farm well sample will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen, TKN. The VOC method may be analyzed using the drinking water method, based upon discussions with MPCA staff.

Task C: Direct Push Groundwater Sampling

To delineate existing groundwater contamination and assist with potentially installing additional permanent monitoring wells, Bay West proposes to conduct a groundwater contamination extent and magnitude assessment with direct-push drilling technology. Bay West will procure direct-push drilling services from state contract drilling firms using the SCOF. This scope of work does not include installing additional permanent monitoring wells. Specifically, Bay West proposes to:

- Collect groundwater samples at three locations approximately 75 to 100 feet west of the landfill between the landfill and residential properties to the west (**Figure 3**). Groundwater samples will be collected using direct-push technology and temporary stainless-steel screen-point samplers. The surficial aquifer is assumed to be approximately 20 to 25 feet below grade. The samples will be collected using a peristaltic pump equipped with dedicated disposable tubing. Groundwater samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen, and TKN.
- Collect groundwater samples at two locations south of the landfill with direct-push technology to fill the gap in the monitoring wells already located south of the landfill (**Figure 3**). Groundwater samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen, and TKN.
- Collect groundwater samples at two locations approximately east of the landfill with direct-push technology to assess groundwater quality east of the landfill (**Figure 3**). Groundwater samples will be submitted for laboratory analysis of GRO, DRO, VOCs, PAHs, dissolved RCRA metals, pesticides, nitrate-nitrite nitrogen, and TKN.

Objective 4 Timeline: Bay West will complete Objective 4 within 60 days of receiving notice to proceed, analytical data will be available approximately two weeks following sample collection.

Objective 4 Deliverables: If any risks to private drinking water wells are identified during this sampling, Bay

West will immediately provide these results to the MPCA and then immediately begin acting to reduce the exposure by providing bottled water to these receptors until a long-term alternative water supply plan can be developed.

The other deliverables associated with Objective 4 will be copies of groundwater analytical laboratory reports and data summary tables, and figures illustrating the sample locations. This information will be provided initially to the MPCA project manager as an email tech memo and incorporated into the final comprehensive project report.

Objective 5: Remedy Evaluation and Final Report Preparation

Task A: Remedy Evaluation

Bay West will evaluate the data collected under Objectives 1 through 4 above and present remedial options based on this data and appropriate risk assessment criteria. Various remedy options are presented below based on assumptions of the current condition of the landfill and the results of the assessment activities.

- Based on the results of landfill gas sampling within the footprint of the landfill and in the perimeter permanent sampling points, Bay West will assess if active vapor mitigation is warranted verses the current passive system with 20 vents. The distressed crop vegetation indicates that off-site migration is a likely concern and the proposed development nearby would create additional receptors. Active methane gas collection would likely be designed and completed in conjunction with improvements to the landfill cap. Active mitigation could involve trenching through the landfill to install lateral or vertical slotted piping, which would be manifolded to a central intrinsically safe blower.
- Because of the relatively flat profile of the landfill cover and ponding in several areas, Bay West would propose improving the landfill cover through importation of additional fill material to improve the landfill slope and profile. Improvements to the landfill would be completed in accordance with appropriate MPCA landfill guidance including Document #5.09 Guidance for Soil Construction Standards and Testing Frequencies – Final Cover Construction (June 2009) and Landfill Slope Guidance dated May 2002.
- Based on groundwater sampling results and their proximity to the landfill, request permission from the property owners to seal the irrigation wells located immediately west of the landfill.
- Based on the results of groundwater delineation sampling near the landfill, install several additional surficial aquifer monitoring wells and implement a periodic groundwater monitoring schedule to track migration of landfill contaminants in the surficial aquifer. Measure groundwater elevations and calculate groundwater flow directions and consider modeling the groundwater plume and contaminant travel times.
- Following evaluation of groundwater quality near the landfill, the risk to receptors, and aquifer characteristics, assess the potential need for landfill leachate control or collection.
- Assuming the private drinking water well east of the landfill is shown to not contain contaminants above regulatory limits, implement a periodic monitoring plan to ensure the safety of this drinking water supply for the farm and their cattle.

Task B: Final Report Preparation

Upon completion of the project objectives as described above, Bay West will prepare a comprehensive final report presenting the data collected under this work plan. The final report will include the following:

- A narrative of the project history and project activities in chronological order;
- Tables of analytical results by media and analytical suite with exceedances of applicable or appropriate regulatory criteria;
- A series of figures illustrating sample locations and relevant results with exceedance of regulatory criteria highlighted, potentiometric surface contours, and the estimated extent and magnitude of groundwater contamination. These figures can also be presented on Bay West's web mapping application throughout the project to expedite agency review and streamline additional discussions, if desired.;
- A series of figures synthesizing the geophysical data, landfill cover investigation, topographic survey and high-resolution aerial imagery illustrating the extent of landfill waste and landfill cover conditions;
- Cross-sections of the landfill illustrating the estimated vertical extent of landfill waste and local geologic

conditions from boring logs;

- Conclusions and recommendations for the path forward. This will likely involve design alternatives and costs for active methane gas collection.
- A discussion of various remedial options as described above under Objective 5, Task A.

Objective 5 Timeline: Bay West will complete Objective 5 within 60 days of receiving the final analytical data and geophysical data packages from the geophysical contractor.

Objective 5 Deliverables: The deliverable associated with Objective 5 will be the final comprehensive report synthesizing all the data collected under this work plan as described above.

Figures

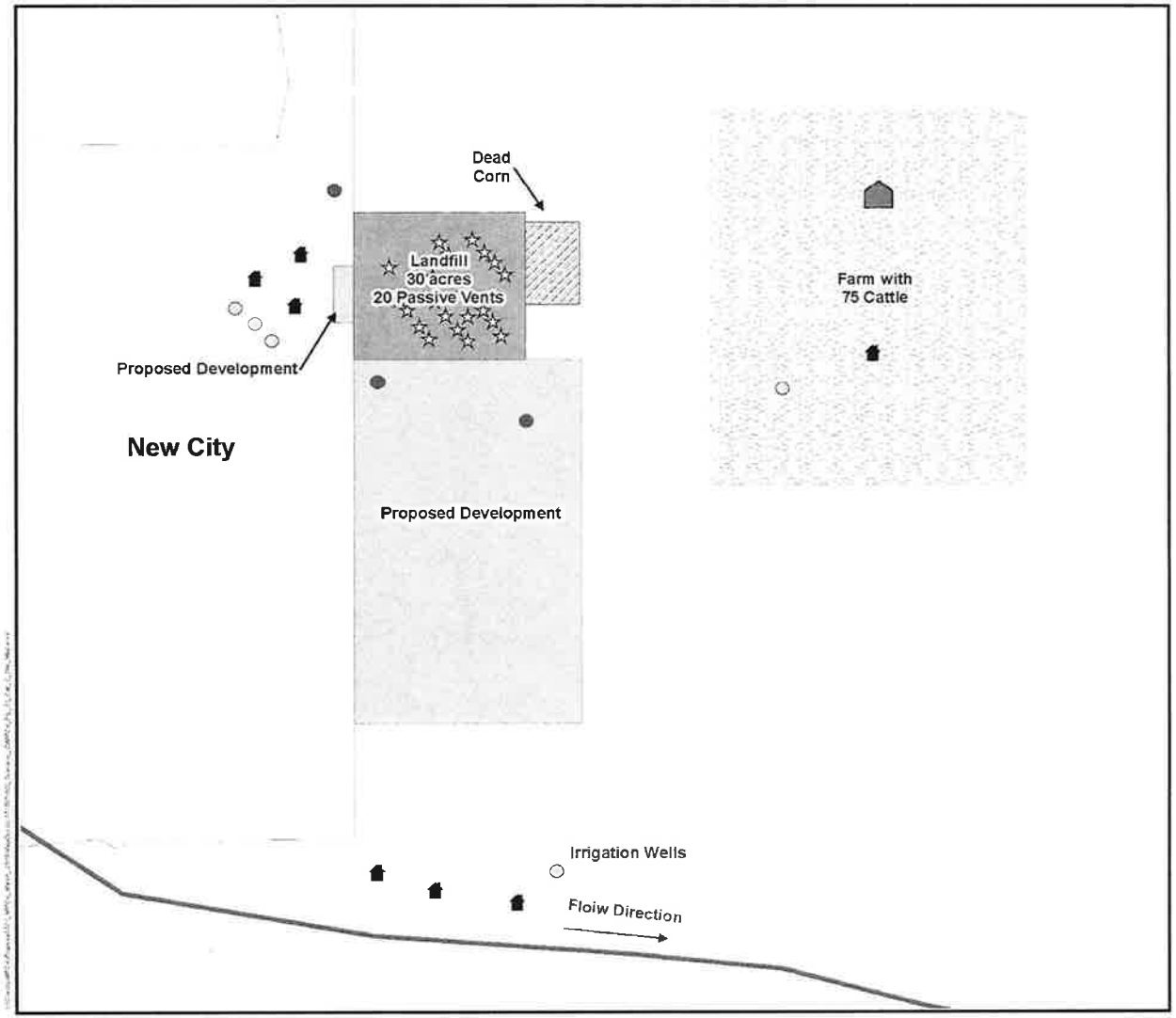
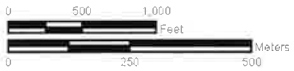


Figure 1

Scenario C Site Map



Farm
Houses
Passive Vent
Private Drinking Water Well
Unused Monitoring Well
Stream
Proposed Development
Dead Corn
farm
landfill
New City

Bay West
Customer-Focused Environmental & Industrial Solutions

Date Drawn 4/5/2018 Project # J170589

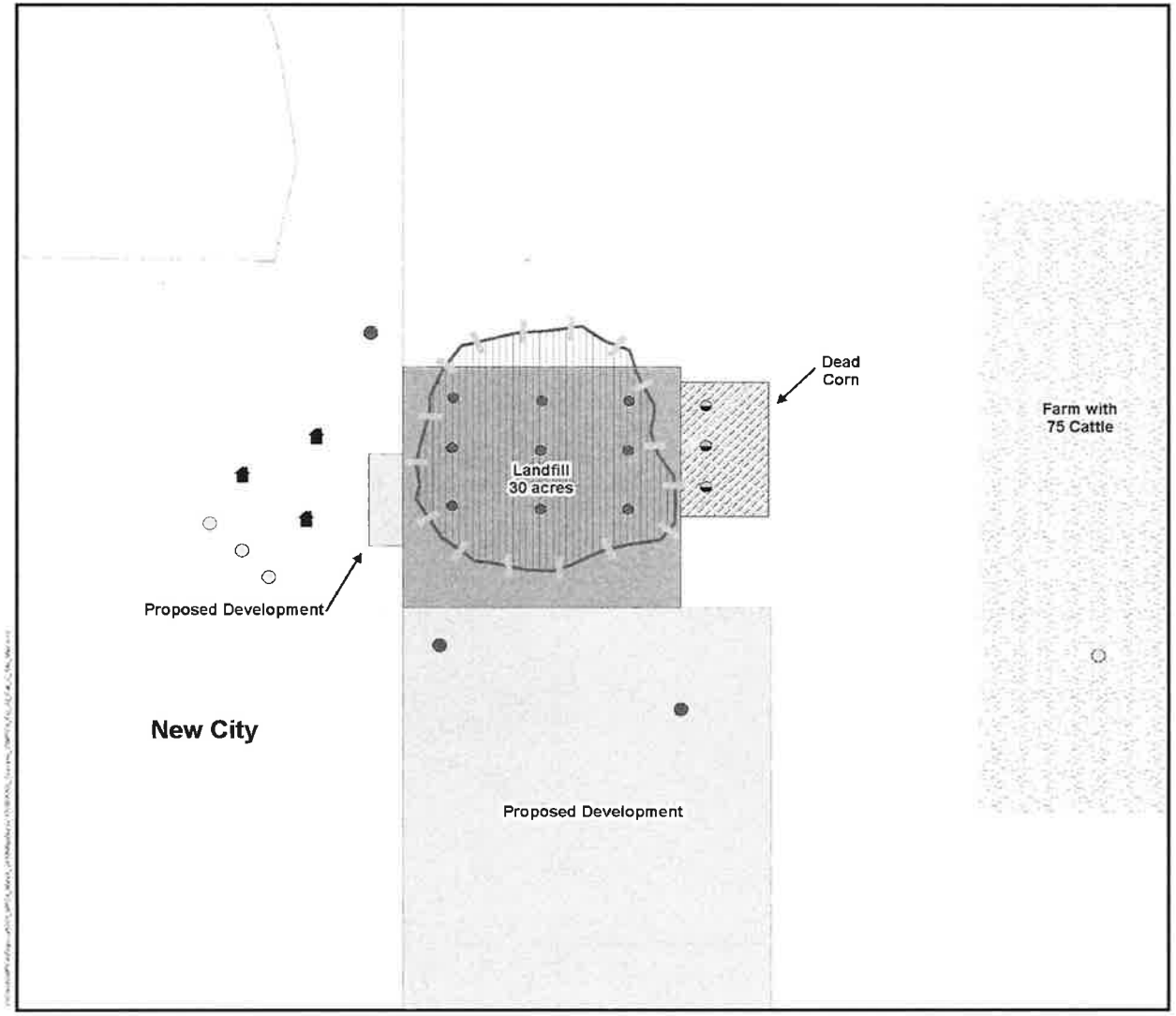


Figure 2

Scenario C
Landfill Cover and
Waste Extent Evaluation

- Proposed Test Trench
- Proposed Soil Boring
- Proposed Near-Surface Composite Soil Sample (Distressed Vegetation)
- Houses
- Private Drinking Water Well
- Unused Monitoring Well
- Assumed Extent of Waste Defined by Geophysical Assessment
- Proposed Development
- Dead Corn
- Farm
- Landfill
- New City

Bay West
Customer-Focused Environmental & Industrial Solutions

Date Drawn 4/9/2018 Project # J170589

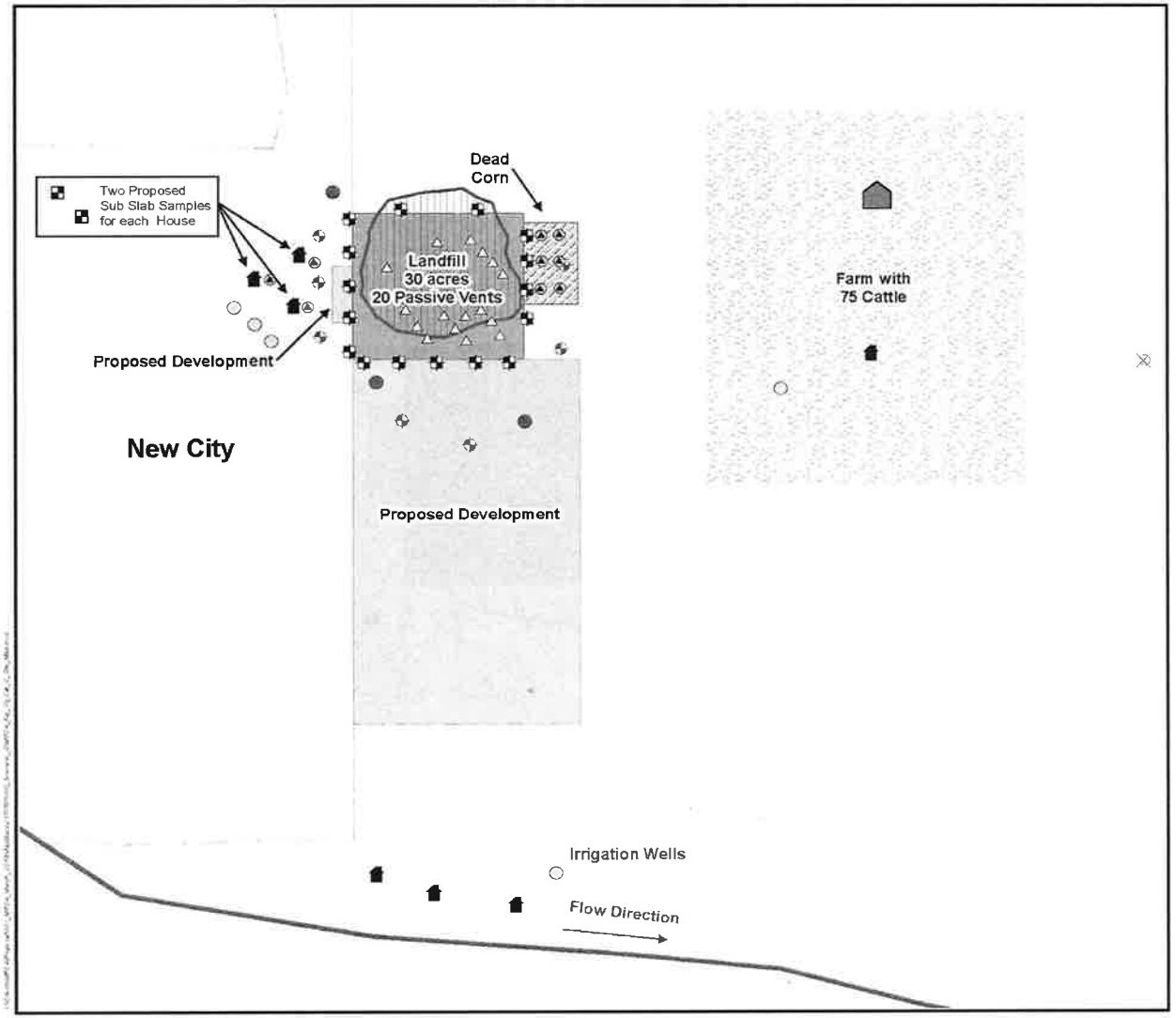


Figure 3
Scenario C
Landfill Gas and Groundwater Evaluation

- Proposed Sub Slab Sample
- Proposed Receptor-specific Soil Gas Sample
- Proposed Permanent Soil Gas Monitoring Points
- Proposed Direct Push Groundwater Sampling Location
- Farm
- Houses
- Passive Vent
- Private Drinking Water Well
- Unused Monitoring Well
- Stream
- Assumed Extent of Waste Defined by Geophysical Assesment
- Proposed Development
- Dead Corn
- farm
- landfill
- New City

Bay West
Customer Focused Environmental & Industrial Solutions

Date Drawn: 4/5/2018 Project # J170589

MINNESOTA POLLUTION CONTROL AGENCY

Attachment B
*Example Scenario Project Spreadsheet

Project title: Category C: Closed Landfill Scenario

													2. Subcontracting				3. Equipment			4. Other Expenses		
Project Budget	Engineer 1	Engineer 2	Engineer 3	Engineer 4	Field Technician	GIS/CADD Specialist	On-Site Inspector	Project Manager	QA/QC Officer	Scientist 1	Scientist 2	Total hours (Extended)	Drilling	Lab Fees	Surveyor	Geophysical Contractor	Owned/Fee Schedule Equipment	Vehicle Mileage	Rental Equipment	Database and File Search		
													State Contractor	State Contractor	Purchasing Manual	State Contractor						
Objective 1 - Phase I ESA																						
Task A - Phase I ESA					30.00	6.00		6.00		15.00		57.0						$ 35.00		$ 450.00		
Total Hrs for Objective 1	**0.0**	**0.0**	**0.0**	**0.0**	**30.0**	**6.0**	**0.0**	**6.0**	**0.0**	**15.0**	**0.0**	**57.0**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 35.00**	**$ -**	**$ 450.00**	**$ -**	**$ -**
Objective 2 - Evaluate Extent and Volume of Landfill Waste, Evaluate Landfill Cover																						
Task A - Geophysics					30.00	10.00		6.00				46.0				$ 35,000.00		$ 100.00				
Task B - Borings and Test Pits												0.0										
Subtask 1 - Test Trenches					50.00	2.00		10.00			50.00	112.0		$ 6,900.00			$ 1,500.00	$ 130.00	$ 6,000.00			
Subtask 2 - HSA Borings					80.00	2.00		6.00		80.00		168.0	$ 18,000.00	$ 15,550.00			$ 2,000.00	$ 260.00				
Subtask 3 - Surface Soil Eval						1.00		2.00				3.0		$ 2,000.00								
Task C - Landfill Cover Topo												0.0										
Subtask 1 - Topo Survey						4.00		2.00				6.0			$ 7,500.00							
Subtask 2 - Aerial Imagery					8.00	16.00		4.00				28.0						$ 35.00	$ 300.00			
Total Hrs for Objective 2	**0.0**	**0.0**	**0.0**	**0.0**	**168.0**	**35.0**	**0.0**	**30.0**	**0.0**	**80.0**	**50.0**	**363.00**	**$ 18,000.00**	**$ 24,450.00**	**$ 7,500.00**	**$ 35,000.00**	**$ 3,500.00**	**$ 525.00**	**$ 6,300.00**	**$ -**	**$ -**	**$ -**
Objective 3 - Assess Landfill Gas Generation and Soil Gas Monitoring																						
Task A - Permanent Soil Gas Pts					24.00	2.00		6.00				32.00	$ 15,000.00	$ 2,844.00			$ 750.00	$ 150.00				
Task B - Receptor-Spec Sampling					10.00	2.00		8.00				20.00	$ 2,000.00	$ 861.00			$ 350.00	$ 35.00				
Total Hrs for Objective 3	**0.0**	**0.0**	**0.0**	**0.0**	**34.0**	**4.0**	**0.0**	**14.0**	**0.0**	**0.0**	**0.0**	**52.00**	**$ 17,000.00**	**$ 3,705.00**	**$ -**	**$ -**	**$ 1,100.00**	**$ 185.00**	**$ -**	**$ -**	**$ -**	**$ -**
Objective 4 - Groundwater Quality Evaluationand Risk to Receptors																						
Task A - GW Receptor Survey					16.00	2.00		2.00		8.00		28.00										
Task B - Sample Wells					40.00			20.00				60.00		$ 6,000.00			$ 200.00	$ 150.00				
Task C - Direct Push GW Sampling					16.00	2.00		4.00				22.00	$ 3,500.00	$ 4,800.00			$ 122.00	$ 65.00				
Total Hrs for Objective 4	**0.0**	**0.0**	**0.0**	**0.0**	**72.0**	**4.0**	**0.0**	**26.0**	**0.0**	**8.0**	**0.0**	**110.00**	**$ 3,500.00**	**$ 10,800.00**	**$ -**	**$ -**	**$ 322.00**	**$ 215.00**	**$ -**	**$ -**	**$ -**	**$ -**
Objective 5 - Remedy Evaluation and Final Report																						
Task A - Remedy Evaluation		24.00	32.00			16.00		32.00			40.00	144.00										
Task B - Final Report Preparation		16.00	16.00			8.00		40.00			32.00	112.00										
Total Hrs for Objective 5	**0.0**	**40.0**	**48.0**	**0.0**	**0.0**	**24.0**	**0.0**	**72.0**	**0.0**	**0.0**	**72.0**	**256.00**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Total Project Hours	**0.0**	**40.0**	**48.0**	**0.0**	**304.0**	**73.0**	**0.0**	**148.0**	**0.0**	**103.0**	**122.0**	**838.00**										
Total Project Expenses													**$ 38,500.00**	**$ 38,955.00**	**$ 7,500.00**	**$ 35,000.00**	**$ 4,922.00**	**$ 960.00**	**$ 6,300.00**	**$ 450.00**	**$ -**	**$ -**

Bay West
Customer-Focused Environmental & Industrial Solutions

Attachment C -Sample Contract

Bay West has no exceptions to the Sample State of Minnesota Professional and Technical Services Remediation Master Contract attached in the Remediation Master Contract RFP.

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 Minnesota Pollution Control Agency 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: Bay West, LLC.

Authorized Representative (Please Print) Ed Bacig

Authorized Signature: Ed Bacig

Date: 3/14/18

Subscribed and sworn to me this 14th day of March, 2018

JULIE RAE TSCHIDA
Notary Public
Minnesota
My Commission Expires
Jan 31, 2023

Notary Public Signature:

My commission expires: January 31, 2023

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: Bay West LLC Date 3/14/18

Authorized Signature: Ed Bacig Telephone number: (651) 291-3414

Printed Name: Ed Bacig Title: Vice President

For assistance with this form, contact:

Minnesota Department of Human Rights, Compliance Services

Web: http://mn.gov/mdhr/ TC Metro: 651-539-1095 Toll Free: 800-657-3704

Email: compliance.mdhr@state.mn.us TTY: 651-296-1283

Minnesota Department of
HUMAN RIGHTS

CERTIFICATE OF COMPLIANCE

BAY WEST LLC is hereby certified as a contractor by the Minnesota Department of Human Rights. This certificate is valid from 6/11/2014 to 6/10/2018.

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:

Kevin M. Lindsey, Commissioner

ATTACHMENT F

CERTIFICATION REGARDING LOBBYING

For State of Minnesota Contracts and Grants over $100,000

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

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

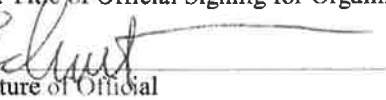
(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, A Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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

Bay West, LLC.
Organization Name

Ed Bacig, Vice President
Name and Title of Official Signing for Organization

By: 
Signature of Official

3/14/18
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.

Authorized Signature	Ed Bacig Printed Name	Vice President Title
Bay West, LLC. Organization	41-1234511 MN/FED Tax ID#	3/14/18 Date

Minnesota Department of Human Rights
Issuing Entity

Project # or Lease Address

CERTIFICATE OF EQUAL PAY

BAY WEST LLC is hereby awarded a Certificate of Equal Pay by the Minnesota Department of Human Rights. This certificate is valid from August 26, 2014 to August 25, 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:

Kevin M. Lindsey, Commissioner

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.)*
   X **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.
   X **Yes** ___ **No (must check yes or no)**

3. Has a business address in the State of Minnesota.
   X **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.
   X **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: Bay West, LLC. Date: 3/14/18

Authorized Signature: [signature] Telephone: (651) 291-3414

Printed Name: Ed Bacig Title: Vice President

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

Event Details

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

BAY WEST LLC
5 EMPIRE DR
ST PAUL MN 55103-1867
United States

Submit To:

520 LAFAYETTE RD N
ST PAUL MN 55155-4194
United States

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

Bid Number: 1
Bid Date: 04/10/2018 10:36:07
Total Bid Amount: 0.00

Contact: Heininger,Mary
Phone: 651/757-2418

Email: Contracts.pca@state.mn.us

Event Description

Questions and Answers - MPCA PT RFP Remediation Master Contract - March 19, 2018

Addendum 1 - MPCA PT RFP Remediation Master Contract - March 19, 2018

The Minnesota Pollution Control Agency ("MPCA" or "State") and the Minnesota Department of Agriculture ("MDA" or "State") request proposals from qualified experienced environmental contractors (Contractors) to perform environmental investigations and other response actions at sites throughout Minnesota. The State seeks multiple Contractors to provide environmental services, including risk assessments, sampling, investigations, feasibility studies, removal and response actions, remedial design, response action oversight, and long-term operation and maintenance activities statewide. The Scope of Services is divided into three Categories of Service:

- Category A – Petroleum, Superfund, MDA, Closed Landfill Program Environmental Services
- Category B - Petroleum Environmental Services
- Category C - Closed Landfill Program Environmental Services

Refer to attached RFP for additional information.

Proposals due: April 11, 2018
Questions due: March 12, 2018

The RFP and attachments are at the header level. Cost attachment not applicable.

Please note that the link to add or view comments throughout the solicitation is called ' Click here to add or view comments and/or documents related to this line.

VENDORS - DO NOT CLICK THE "NO BID" BOX.

General Comments

- Questions and Answers - Uploaded March 19, 2018

  Addendum 1 - Uploaded March 19, 2018

  See attached RFP and attachments for further details and application instructions.

  ATTENTION PROPOSERS - Attach your proposal and attachments in the Event Header location.

Event Details (cont.)

Event ID	Format	Type	Page
R3201-2000008034	Sell	RFx	2
Event Round	**Version**		
1	1		
Event Name			
MPCA PT RFP Remediation Master Contract			
Start Time		**Finish Time**	
02/28/2018 08:00:00		04/11/2018 14:00:00	

BAY WEST LLC
5 EMPIRE DR
ST PAUL MN 55103-1867
United States

Submit To:

520 LAFAYETTE RD N
ST PAUL MN 55155-4194
United States

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

Contact: Heininger,Mary
Phone: 651/757-2418

Email: Contracts.pca@state.mn.us

Bid Number: 1
Bid Date: 04/10/2018 10:36:07
Total Bid Amount: 0.00

Line Details

N

Line: 1 **Item ID:** **Line Qty:** 1.00 **UOM:** EACH **Bid Qty:** 1

Reserve Price: No

Description: not applicable - costs included in RFP
Comments:

- Attention Proposers: Your proposal and all attachments should be submitted in the Event Header location

Question	Response
What is the price per unit?	0

Response Comments

Event Details (cont.)

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

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

Bid Number: 1
Bid Date: 04/10/2018 10:36:07
Total Bid Amount: 0.00

BAY WEST LLC
5 EMPIRE DR
ST PAUL MN 55103-1867
United States

Submit To:
520 LAFAYETTE RD N
ST PAUL MN 55155-4194
United States

Contact: Heininger,Mary
Phone: 651/757-2418

Email: Contracts.pca@state.mn.us

Bidder Information

Firm Name:

Name: **Signature:** **Date:**

Phone #: **Fax #:**

Street Address:

City & State: **Zip Code:**

Email:

Event Details (cont.)

Event ID	Format	Type	Page
R3201-2000008034	Sell	RFx	4
Event Round	**Version**		
1	1		
Event Name			
MPCA PT RFP Remediation Master Contract			
Start Time		**Finish Time**	
02/28/2018 08:00:00		04/11/2018 14:00:00	

BAY WEST LLC
5 EMPIRE DR
ST PAUL MN 55103-1867
United States

Submit To:
520 LAFAYETTE RD N
ST PAUL MN 55155-4194
United States

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

Contact: Heininger,Mary
Phone: 651/757-2418

Email: Contracts.pca@state.mn.us

Bid Number: 1
Bid Date: 04/10/2018 10:36:07
Total Bid Amount: 0.00

Appendix A - Line Specifications

Line: 1 **Item ID:** **Line Qty:** 1 **UOM:** EACH
Description: not applicable - costs included in RFP

Item Specifications

Manufacturer:			
Mfg Item ID:			
Item Length:	0	**Item Height:**	0
Item Width:	0	**Dimension UOM:**	
Item Volume:	0	**Volume UOM:**	
Item Weight:	0	**Weight UOM:**	
Item Size:		**Item Color:**	

Shipping Information

Schedule:	1	**Ship To:**	MPCA REMEDIATION DIVISION
Quantity:	1		520 LAFAYETTE RD N
Due Date:	04/11/2018		ST PAUL MN 55155-4194
Freight Terms:			United States
Ship Via:			

Event Details (cont.)

Event ID	Format	Type	Page
R3201-2000008034	Sell	RFx	5
Event Round	**Version**		
1	1		
Event Name			
MPCA PT RFP Remediation Master Contract			
Start Time		**Finish Time**	
02/28/2018 08:00:00		04/11/2018 14:00:00	

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

Bid Number: 1
Bid Date: 04/10/2018 10:36:07
Total Bid Amount: 0.00

BAY WEST LLC
5 EMPIRE DR
ST PAUL MN 55103-1867
United States

Submit To:
520 LAFAYETTE RD N
ST PAUL MN 55155-4194
United States

Contact: Heininger,Mary
Phone: 651/757-2418

Email: Contracts.pca@state.mn.us

Appendix B - General Terms & Conditions

1. Please see attached RFP for General Terms and Conditions.

Last Updated: 11/06/2012

Event Details (cont.)

Event ID	Format	Type	Page
R3201-2000008034	Sell	RFx	6
Event Round	**Version**		
1	1		
Event Name			
MPCA PT RFP Remediation Master Contract			
Start Time		**Finish Time**	
02/28/2018 08:00:00		04/11/2018 14:00:00	

BAY WEST LLC
5 EMPIRE DR
ST PAUL MN 55103-1867
United States

Submit To:

520 LAFAYETTE RD N
ST PAUL MN 55155-4194
United States

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

Contact: Heininger,Mary
Phone: 651/757-2418

Email: Contracts.pca@state.mn.us

Bid Number: 1
Bid Date: 04/10/2018 10:36:07
Total Bid Amount: 0.00

Appendix C - Bid Responses

Bid Comment

Bay West

Line Items

Line: 1 **Item ID:** **Line Qty:** 1 **UOM:** EACH **Bid Qty:** 1
Total Line Bid Amount: 0
Description: not applicable - costs included in RFP

Question	Response
What is the price per unit?	0