

THIRD AMENDMENT TO AGREEMENT

THIS THIRD AMENDMENT TO AGREEMENT (Amendment) made and entered into as of this 27th day of October 2023, amends the Consultant Services Agreement entered into between the CITY OF FRESNO, a California municipal corporation (hereinafter referred to as CITY), and CDM Smith, Inc., a Massachusetts Corporation (hereinafter referred to as CONSULTANT).

RECITALS

WHEREAS, the CITY and CONSULTANT entered into a Consultant Services Agreement on February 1, 2022 (Agreement), as amended on December 20, 2022 (First Amendment) to provide professional consulting services for Environmental Groundwater Remedial Action and Regrading Design for the Fresno Sanitary Landfill Superfund Site for a total fee of \$660,450; and

WHEREAS, the CITY and CONSULTANT entered into a Second Amendment to the Agreement on March 31, 2023 (Second Amendment) to expand the scope of services for a total fee of \$745,650; and

WHEREAS, the CITY and CONSULTANT desire to expand the scope of services and extend the agreement to June 30, 2025, to complete the expanded requirements from the US Environmental Protection Agency; and

WHEREAS, due to the need for additional services, the parties desire to increase the total compensation by an additional \$644,753 to complete the expanded Scope of Services; and

WHEREAS, with entry into this Amendment, CONSULTANT agrees that it has no claim, demands, or disputes against the CITY.

AGREEMENT

NOW, THEREFORE, the CITY and the CONSULTANT agree that the aforesaid Agreement be amended as follows:

1. Exhibit A of the Agreement is amended to expand the scope of services as indicated in **Exhibit A**, attached hereto, and incorporated herein by reference.

2. Section 3(a) of the Agreement is amended in its entirety to read as follows:

“(a) CONSULTANT'S sole compensation for satisfactory performance of all services required or rendered pursuant to this Agreement shall be a total fee of One Million Three Hundred Ninety Thousand Four Hundred and Three Dollars (\$1,390,403). Such fee includes all expenses incurred by CONSULTANT in performance of the services.”

3. Except as otherwise provided herein, the Agreement, First Amendment and Second Amendment entered into by the City and Consultant, remain in full force and effect.

[SIGNATURES FOLLOW ON THE NEXT PAGE.]

IN WITNESS WHEREOF, the CITY and the CONSULTANT have executed this Third Amendment at Fresno, California, the day, and year first above written.

CITY OF FRESNO,
a California municipal corporation

By: DocuSigned by:
Brock D. Buche 10/27/2023
850A517DB3DD42F...
Brock D. Buche, PE, PLS
Director of Public Utilities

APPROVED AS TO FORM:
ANDREW JANZ
City Attorney

By: DocuSigned by:
Angela M. Karst 10/3/2023
0A8F88F889DD447...
Angela M. Karst
Deputy City Attorney

ATTEST:
TODD STERMER, CMC
City Clerk

By: DocuSigned by:
Tina M Your 10/27/2023
2F1BC57F778C4E1...
Deputy
Tina M Your

CDM Smith, Inc.,
a Massachusetts corporation

By: DocuSigned by:
Hala Titus 10/3/2023
CC0678BE72414CA...
Name: Hala Titus

Title: Senior vice President
(If corporation or LLC., Board Chair,
Pres. Or Vice Pres)

By: DocuSigned by:
Servando Molina 10/3/2023
9B24F82BED00442...
Name: Servando Molina

Title: Vice President
(If corporation or LLC., CFO, Treasurer,
Secretary or Assistant Secretary)

Attachment: Exhibit A – Scope of Services



2300 Clayton Rd, Suite 950
Concord, California 94520
Tel: +1 925 933-2900
fax: +1 925 246-9819

September 29, 2023

Mr. Ahmad Alkhayat
Assistant Director
Department of Public Utilities
Solid Waste Management Division
Fresno, California 93706

Subject: Fresno Sanitary Landfill Superfund Site
Proposal – Revised Scope of Work and Budget for
Groundwater and Landfill Remediation Services - October 2023 through
June 2025

Dear Mr. Alkhayat:

Per your discussion on September 27, 2023 with John P. Nyznyk, P.E. of CDM Smith, CDM Smith has revised the scope of work submitted on August 28, 2023, to extend services through June 2025 to align with the City's fiscal year. Attached is the proposed scope of work and budget for an extension to the existing contract between the City of Fresno and CDM Smith for the Environmental Groundwater and Landfill Remediation Services project at the Fresno Sanitary Landfill Superfund Site. This proposal serves as a request to supplement the existing 2023 budget due to a requirement from the U.S. Environmental Protection Agency for additional vapor intrusion investigation activities and for groundwater and landfill remediation services from October 2023 through June 2025. We are pleased to have the opportunity to continue to work with the City on this project.

If you have questions or would like to discuss the proposed scope or budget, please do not hesitate to contact Kassandra Tzou at 925-296-8023.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "Kassandra Tzou".

Kassandra Tzou, P.E., PMP
Project Manager
CDM Smith Inc.

A handwritten signature in black ink, appearing to read "Servando Molina".

Servando Molina, P.E.
Vice President
CDM Smith Inc.

cc: Lorenzo Nadora, City of Fresno
John P. Nyznyk, P.E., CDM Smith
Vibhav Mankad, P.E., CDM Smith



Exhibit A

SCOPE OF SERVICES

**Consultant Services Agreement between City of Fresno (“City”)
And CDM Smith Inc. (“Consultant”)
Fresno Sanitary Landfill Groundwater and Landfill Remediation Services
PROJECT TITLE**

Fresno Sanitary Landfill Scope of Work and Budget for Year 2023 (supplemental) through June 2025

Introduction

Provided below are descriptions of work tasks to be performed by CDM Smith Inc. (Consultant) on behalf of the City of Fresno (City) as part of ongoing operations at the Fresno Sanitary Landfill Superfund Site (“FSL” or “Site”). Ongoing activities are being performed as part of Operable Unit No. 1 (OU-1 – landfill control system operations, maintenance, and reporting) and OU-2 (groundwater remediation system operations, maintenance, and reporting). The ultimate objective of the continued work is to achieve regulatory formal closure of the FSL Superfund Site under the oversight of the U.S. Environmental Protection Agency (EPA).

This scope of work presented below describes work to be performed during the third and fourth quarters of 2023 and extends through June 2025 (end of City fiscal year 2025). Consultant is currently performing work for the City under Amendments No. 1 and No. 2 to the existing agreement. Amendment No. 1 reflected work activities to perform during 2023 to support the monitoring program, system operations assistance, and ongoing reporting required for the FSL and the ongoing groundwater remediation. Amendment No. 2 covered work activities for planning and implementation of the second round of the vapor intrusion (VI) investigation, which was performed in March 2023. Following submittal of the report in July 2023 which documented the second round of the VI, EPA has required an additional round of VI investigation to be performed. This work will be performed during the next construction season (May 1-October 31, 2024) as approved by EPA in their September 26, 2023 email. The scope of work presented below includes planning and implementation of round 3 of VI investigation activities.

Additionally, this scope of work includes quarterly groundwater sampling activities to be performed beginning in October 2023. Groundwater sampling field activities had previously been performed by City staff, who are no longer available to support this effort. The City has requested support to perform these field activities. Bid period and construction period services in support of the Landfill Regrading Design #1 is also included in this scope of work.

Additionally, this scope of work includes work activities to be performed during 2023 through June 2025.

These scope of work activities are a continuation of work performed under the existing contract with the City (dated 2022) and under Amendment No. 1 (for work performed in 2023) and Amendment No. 2 (for the Spring 2023 VI investigation). Work described below is defined in terms of the five project tasks listed below:

Task 1 – Performance Monitoring Program

Task 2 – Remedial Action Systems Operations Assistance

Task 3 – Site Delisting Discussions (*no work is planned under this Task 3 during 2023 through 2025*)

Task 4 – Field Investigation Activities (OU-1)

Task 5 – Project Management/Project Meetings

Task 6 – Landfill Regrading Program – Bid Period and Construction Period Services

Table A-1 consists of a summary of the estimated costs for this scope of work. The total cost for this work is \$644,753 for the 21-month period of performance (October 2023 through June 2025).

Task 1 – Performance Monitoring Program

Objectives

- Perform monitoring activities for the annual performance monitoring program, including 2023 (Quarter 4) and 2024 (Quarter 1, Quarter 2, Quarter 3, and Quarter 4) and 2025 (Quarter 1 and Quarter 2) as part of the Groundwater Remedial Action at the FSL.
- Monitor and evaluate progress of groundwater remediation.
- Document the performance monitoring activities and laboratory analytical results in an annual report and an interim data transmittal to the EPA.
- Prepare responses to review comments from EPA (and other State regulatory agencies).

Activities

- The Groundwater Monitoring Program at the FSL has been ongoing for many years. The City requested that Consultant perform groundwater monitoring activities (quarterly, semi-annual, and annual monitoring events). Consultant has enlisted a subcontractor to assist with sampling services. Task activities will include coordinating with analytical laboratories (e.g., analyses to be performed, numbers and types of sampling containers, delivery of sampling containers to the Site), and sample collection from the groundwater monitoring wells, groundwater extraction wells, residential water supply wells, and the groundwater treatment plant (GTP) influent and effluent sampling ports. Consultant will coordinate with the City in the ongoing implementation of this program.

Field activities to be performed, laboratory analysis, and regulatory agency reporting are described below:

- *Field Activities.* CDM Smith will perform groundwater monitoring, utilizing Blaine Tech Services, Inc (Blaine Tech), with limited assistance from City staff. The plan for sampling and analysis (**Table 4-1** of the *Spring 2023 Annual Performance Monitoring Program*

Report) defines the sampling schedule, number of samples and analytical methods for this quarterly sampling event.

- *Schedule*. Monitoring events will be performed during 2023 (October), during 2024 (January, April, July, and October), and during 2025 (January and April). Listing of the sampling locations are defined in Table 4-1 of the Annual Performance Monitoring Program Report (July 2023 submittal to EPA).
- *Laboratory Analysis*. Analysis of water samples will be performed by two laboratories, including Fresno Wastewater Management Division Analytical Laboratory (WMD; analysis for volatile organic compounds) and BSK Associates Engineers & Laboratories (BSK) in Fresno under direct bill contract with the City (analysis for inorganic compounds). Analysis of water samples include volatile organic compounds and inorganic compounds for targeted wells.
- *Reporting*. On an annual basis, prepare two deliverables associated with the Groundwater Monitoring Program, including Interim Data Transmittal (January 2024 and January 2025) and the Annual Performance Monitoring Program Report (July 2023). These deliverables are described below (under ***Deliverables***).
- *Coordinate with Laboratories*. Identify and work to resolve issues that arise regarding laboratory analytical results (e.g., apparent mislabeling between 2 sample locations, investigate what appears to be anomalous analytical data, etc.).
- Environmental Database – Maintain the environmental database, including upload of analytical data upon receipt from the analytical laboratory following each quarterly sampling round. Database management will include performing data queries and preparing data summary tables that will be included in the interim data transmittal (electronic transmittal) and the annual performance monitoring program report (hard copy submittal and/or electronic transmittal).
- Responses to Regulatory Agency Review Comments (RTCs) – EPA and the State regulatory agencies typically submit review comments on a range of project submittals. This task will involve preparing RTCs for technical deliverables scheduled for submittal to EPA including the OU-1 Annual Report, OU-2 Interim Data Transmittal, and OU-2 Annual Performance Monitoring Program Report.

Assumptions

- Consultant will utilize a subcontractor (Blaine Tech) to assist in the groundwater monitoring rounds.
- City staff will assist, as requested by Consultant, in several groundwater monitoring activities, including:
 - Assist in locating on-site and off-site groundwater monitoring well locations, as requested.

- Ensure access agreements are in-place for off-site monitoring wells and residential wells.
- Coordinate with off-site property owners to allow access to groundwater monitoring wells and residential water supply wells included in the monitoring program.
- City staff will be responsible for ensuring access agreements are in-place for off-site monitoring wells and residential wells.
- Analysis of organic constituents is currently being performed by BSK Associates Engineers & Laboratories (BSK) in Fresno, CA under direct bill contract with the City. The analytical laboratory may be changed at the discretion of the City.
- Analysis of inorganic constituents is currently being performed by the City of Fresno Wastewater Management Division Analytical Laboratory (WMD) in Fresno, CA, under direct bill arrangements with the City.

Deliverables

1. OU-2 Interim Data Transmittal – The Interim Data Transmittal will consist of data summary tables and figures for the July and October groundwater monitoring events. The Interim Data Transmittal will be submitted directly to EPA via e-mail in January 2024 and in January 2025.
2. OU-2 Annual Performance Monitoring Program Report (Annual Report) – The Annual Report will cover the July and October 2023 and the January and April 2024 groundwater monitoring events. A draft document will be submitted to City staff for review. Consultant will incorporate revisions from City staff and prepare final report for submittal to the EPA. The Annual Report will be submitted to EPA in July 2024. The Annual Report to be submitted in July 2025 is not included in this scope of work. Work activities for the Annual Report will include the following elements:
 - Compilation of quarterly monitoring data (field and analytical laboratory data) and GTP operational data.
 - Preparation of data summary tables and graphics. Data summary tables will include groundwater extraction well operational data, groundwater treatment unit performance monitoring data, volatile organic compound (VOC) mass removal, groundwater level measurements, head differential measurements (well clusters), VOC analytical data, inorganic constituent data, and quality control data. Graphics will include groundwater elevation contours for 2 of the quarterly monitoring events and VOC concentration trend plots.
 - Based on the Long-Term Monitoring Optimization Plan (Plan) (CDM Smith, 2007), Consultant will perform an evaluation of the groundwater monitoring wells included in the monitoring program and will propose changes to the monitoring program in accordance with the criteria defined in the Plan. This evaluation will be completed following each April groundwater monitoring event. The results of this evaluation will be documented in the Annual Report.

Task 2 – Remedial Action Systems Operations Assistance

Objectives

- Support the City's high-quality performance of the landfill environmental control systems, including the landfill cover, landfill gas (LFG) control, and stormwater management systems.
- Assist City staff in the ongoing operations, monitoring, and maintenance of the groundwater remediation system and the landfill control systems at the FSL.

Activities

Under this task, Consultant will assist the City in ongoing operations and maintenance activities associated with the groundwater treatment system and the landfill control systems. This task will consist of on-site and office activities necessary to maintain effective operation of the groundwater collection and treatment system, the LFG control system, and the function of the final landfill cover/stormwater management systems. This task includes the following activities:

- Operable Unit 1 Annual Report (*Annual Activity*) – Consultant will prepare a report, which is intended to document operations and maintenance activities associated with the landfill (LFG) control elements, including the landfill cover, stormwater management, and LFG control systems. The OU-1 Annual Report, to be submitted to EPA in February 2024 and February 2025, will address operations during the prior year. The OU-1 Annual Report will consist of the following elements:
 - Summary of LFG flare operating data. This summary would include a listing of the LFG flare downtimes, including downtimes resulting in operation of the GTP in LFG flare bypass mode.
 - Compilation of perimeter LFG monitoring probe data.
 - Assessment of the condition of the landfill cover system and the stormwater management system. The assessment would rely on information generated during inspections of the landfill cover and stormwater management system performed by Consultant and/or City staff. Of particular importance is the inspection scheduled early fall, prior to onset of rainy weather.
 - Overview of maintenance activities performed on the landfill control systems and description of repairs or equipment replacements.
- Surface Emissions Monitoring (SEM) – Consultant prepared the SEM Work Plan in October 2022, and the City performed SEM in May 2023. City staff will be responsible for performing the SEM on a quarterly basis, with the next monitoring rounds in October 2023, January 2024, and April 2024. Federal guidelines allow a reduction in frequency to annual monitoring if methane is not detected above 500 ppm for three consecutive quarters. It is expected that there will be a single SEM event in 2025. Consultant will be available to provide input to City staff in terms of refinements to the SEM program at the FSL and to prepare a brief technical memorandum following each monitoring period. The objectives of the technical memorandum are to document the SEM program activities and to present the monitoring data. Each technical memorandum will be submitted to EPA, following draft document submittal to City staff for review and Consultant incorporation of revisions from City staff.

- Landfill Inspection and Maintenance Assistance – Activities to be performed under this subtask will be focused on assisting the City in planning and performing landfill inspection and maintenance activities.
 - Annual Landfill Inspection (Annual Activity) – The annual landfill inspection will be performed during the Fall of 2023 and Fall of 2024. At the request of the City, additional inspections may be performed following heavy precipitation events that could impact landfill control systems function. A description of landfill inspection activities/procedures is provided below:
 - Focus of the inspections will be on the landfill control system elements, including landfill cover system, surface water management system, and LFG control system.
 - Highlight the need for performing routine maintenance activities related to the landfill control systems.
 - Highlight the need for performing corrective action activities to address damage, inoperable conditions, or failure of the landfill control systems. The descriptions will be specific to each of the landfill control system elements.
 - Prepare report to document inspection and to describe maintenance, repair, and corrective actions.
 - Identify landfill regrading needs identified as part of the landfill inspections.
 - Wet Weather Inspections – Inspections will be performed during wet weather months (considered to be October through March). City staff will be responsible for performing these inspections, including completing the inspection form for submittal to Consultant who will review and submit to EPA.
 - Quarterly Inspections – Given overlap with the other scheduled landfill inspections (Annual and wet weather Inspections, only one quarterly inspection during the year (June). City staff will be responsible for performing this inspection, including completing the inspection form for submittal to Consultant who will review and submit to EPA.
- Annual Evaluation of Extraction Well Performance (*Annual Activity*) – Consultant will perform an evaluation of the performance of each extraction well on an annual basis. Performance factors to be considered during the performance evaluation will include specific capacity (pumping rate per foot of drawdown) and changes in pumping rate and drawdown over time, with comparison to historical data.
- New Well Evaluations (*Periodic Activity*) – Consultant will perform groundwater modeling evaluations of proposed new water supply wells (agricultural and residential) in the vicinity of the FSL. The purpose of the new well evaluations is to assess the potential for impact to the existing groundwater remediation system at the FSL from operation of proposed new wells. Under the current arrangement, the County of Fresno, Department of Public Health, Environmental Health Division (Fresno County) notifies the City when a permit application for a new or replacement water supply well is submitted in a location within the well assessment zone. Based on groundwater modeling results, Consultant will either recommend that the well not be installed or recommend design modifications for the proposed well (e.g., depth of well, depth of annular seal, and length of screen zone). It is assumed that Consultant will perform two evaluations per year for the duration of the period of performance.

- Groundwater Modeling – Based on discussions during recent technical meetings with EPA (most recent was held August 23, 2023), we anticipate that groundwater modeling will be required to address questions from EPA. In consultation with the City, Consultant will perform groundwater monitoring in responding to EPA comments/questions. It is assumed that this task is limited to 100 labor hours during the period October 2023 through June 2025.

Assumptions

- SEM event will be performed in October 2023, January 2024, and April 2024. It is assumed that the City will not detect methane at concentrations above 500 ppb, which will allow the quarterly monitoring program to be reduced to annual monitoring. Therefore, the cost estimate was developed with the assumption that three SEM technical memoranda will be prepared during 2023-2024 and one SEM technical memorandum in 2025.
- With monthly requests from Consultant, City staff will provide Consultant with information listed below in a timely manner. The requested information constitutes critical information for reporting to EPA (e.g., Quarterly Progress Reports, OU-2 Annual Performance Monitoring Report, OU-1 Annual Report).
 - Downloads of the SCADA system in Excel with operations data for the groundwater remediation system (data from extraction well operations and groundwater treatment plant operations) and for the landfill gas (LFG) flare system (LFG flare operations). Consultant will compile these data and make necessary assumptions and calculations for filling data gaps.
 - Weekly maintenance summaries for the groundwater remediation system and the LFG flare.

Deliverables

1. OU-1 Annual Report (*Annual Deliverable*). A draft report will be submitted to the City for review. The report will be revised based on review comments from the City and finalized for submittal to EPA. Two OU-1 Annual Reports will be prepared under this scope of work, with submittal dates of February 2024 and February 2025.
2. Annual Extraction Well Performance Evaluation Technical Memorandum (*Annual Deliverable*). The technical memorandum, which will document the performance evaluation on each of the groundwater extraction wells, will be submitted to the City. This technical memorandum is not intended as a formal submittal to EPA. One Extraction Well Performance Evaluation will be prepared under this scope of work, with a submittal date of July 2024.
3. New Well Evaluations (*Periodic Deliverables*). At the conclusion of each new well evaluation that is performed, a letter to the City will be prepared for submittal to the City which documents groundwater modeling results and provides well construction recommendations.
4. SEM Technical Memorandum. A technical memorandum will be prepared to document each quarterly monitoring event. It is expected that three SEM technical memoranda will be prepared during 2023-2024 and one annual report during 2025.

Task 3 – Superfund Site Delisting Pathway – Planning and Implementation

There will be no Task 3 services performed during 2023, 2024, or 2025.

Task 4 – Vapor Intrusion Investigation – Round 3 (OU-1)

Objective

- Plan and implement the third round of vapor intrusion (VI) sampling to further assess the risk to human health from migrating LFG at locations in the areas of concern near the landfill identified in the July 2023 VI report.

Activities

The third round of sampling (to be performed in Spring 2024) will be consistent with air sample collection performed during Round 1 (Fall 2022) and Round 2 (Spring 2023), as defined in the VI Investigation Work Plan (approved by EPA in October 2022) and the Vapor Intrusion Investigation Work Plan Addendum for the Fresno Municipal Sanitary Landfill Superfund Site, dated September 15, 2023 (approved by EPA in September 21, 2023) with four additional soil gas locations and one additional ambient air sample.

- Collect indoor air samples at the Groundwater Treatment System (GTP)/Landfill Gas (LFG) Flare Control Building and an elevated trailer used by the City Parks Department (located north of the FSL near Jensen Avenue). Sample collection will be performed under conditions of HVAC system operating and HVAC system not operating.
- Collect outdoor air samples in conjunction with indoor air samples to assess ambient and background air conditions. A new background outdoor location (different than the location used in the Rounds 1 and 2) will be selected with the approval of EPA.
- Collect a crawlspace air sample from the space under the City Parks Department trailer.
- Collect an air sample from a sewer manhole near the intersection of North Avenue and West Avenue. Note that a traffic safety services subcontractor during sampling at the sewer manhole.
- Conduct utility clearance of the new soil vapor probe locations with CDM Smith's subcontractor, Foresite Engineering Surveys, Inc. of Pleasant Hill, California.
- Drill and install sets of soil gas probes at 5-foot and 15-foot depths at 4 new locations near the southeast corner of the landfill property, including to the west of the South Retention Basin (SG-6), east of the South Retention Basin near West Avenue (SG-7), due south of the SG-5 location near North Avenue (SG-8), and near a sewer line along West Avenue outside of the property to the south of the site (SG-9). The soil gas probes will be installed by a California C-57 licensed drilling subcontractor using a hollow-stem auger drill rig. No soil or groundwater samples will be collected and submitted for laboratory analysis. A traffic safety services subcontractor will be required during drilling operations of the soil probe and sampling of the soil probe located adjacent to North Avenue.
- Collect soil gas samples from SG-6, SG-7, SG-8, and SG-9 at 5-foot and 15-foot depths.

- Collect soil gas samples at 5-foot and 15-foot depths from existing soil gas probes (SG-2, SG-3, and SG-5) installed during Rounds 1 and 2.
- Collect two perimeter probe samples (MMW-2 and MMW-3) at the 25-foot depth.
- Indoor air and outdoor air samples will be collected by CDM Smith personnel, while soil gas samples and perimeter probe samples will be collected by CDM Smith subcontractor H&P Mobile Geochemistry of Carlsbad, California and traffic control will be provided by Safety Network Traffic Services of Bakersfield, California.
- Indoor air samples and soil gas samples will be collected in laboratory-supplied Summa canisters and analyzed in accordance with the following methods:
 - Indoor air, outdoor air, and crawlspace and manhole samples for VOCs by EPA Method TO-15-SIM.
 - Soil gas samples for VOCs by EPA Method TO-15.
 - Soil gas samples for Helium by modified ASTM D-1945 – atmospheric gas analysis.

Assumptions

- EPA will not require additional indoor air or soil gas sampling beyond the third round of sampling described above.
- EPA will have one round of review comments in response to the VI Evaluation Report. These comments will include a compilation of comments from the State regulatory agencies.
- Utility clearance, field sampling, and soil vapor probe installation will take a week and a half including:
 - 1 day of utility clearance performed by CDM Smith's subcontractor, overseen by CDM Smith field staff.
 - 2 days of installation of the new soil vapor probes and sample collection performed by CDM Smith's subcontractor, overseen by CDM Smith field staff.
 - Standby days to allow for ambient air and soil vapor equilibration following probe installation and under conditions of HVAC system operating and HVAC system not operating.
 - 3 days for Indoor and outdoor air sampling performed by a two-person CDM Smith field team.
 - 2 days of traffic control performed by CDM Smith's subcontractor; no overtime assumed.

Deliverables

- Round 3 VI Investigation Work Plan Addendum. This addendum will consist of a letter describing the Round 3 VI rationale and activities. The Work Plan was submitted to EPA in September 2023.
- Vapor Intrusion Evaluation Report. This Report will describe the investigation activities performed during Round 3 (in Spring 2024) and present data generated during the investigation activities. The analytical results will be compared to ESLs and RSLs, and an evaluation of the potential risk to human health. The Report will be submitted to EPA.
- Technical calls/meetings with EPA. Consultant will participate in calls with EPA during preparation for field activities, evaluation of data, and preparing responses to EPA review comments on the VI Evaluation Report. Formal written responses to EPA comments (RTCs) on the VI Evaluation Report will be prepared. If requested from EPA, a final report that incorporates EPA's input will be prepared for submittal to EPA.

Task 5 –Project Management/Project Meetings

Objectives

- Meet project scope, schedule, and budget requirements.
- Maintain effective communication with the City, EPA, and other regulatory agency staff on key project issues.

Activities

The activities described below are to be performed during 2023 through June 2025.

- Perform routine project management activities, which will include staff oversight, budget management, invoicing and coordination with the City on budget and scope of work development.
- Prepare schedule updates, as needed.
- Participate in project meetings and project conference calls, including prepare meeting agendas and other handouts.
- Prepare quarterly reports providing status updates regarding remedial actions implemented at the FSL. Consultant will submit draft quarterly reports to the City.
- Prepare contracting documents for multiple subcontractors.
- Interact with EPA in preparation for and during implementation of the field activities.

Assumptions

- The City will finalize the quarterly reports with transmittal to EPA.
- The budget reflects participation in only one monthly project conference call during 2024 and 2025. In addition, there will be one project status meeting at the FSL Site during 2024.

Deliverables

1. Monthly invoices to the City documenting Consultant work performed.
2. Agenda and handouts for periodic project meetings or teleconferences.
3. Quarterly Project Reports prepared during 2023 (October), 2024 (January, April, July, and October), and 2025 (January and April).

Task 6 – Landfill Regrading/Landfill Control Systems Repair – Design, Bid Period, and Construction Period Services (OU-1)

The City began implementation of a Landfill Regrading Program to address differential settlement that has occurred on the landfill. The Landfill Regrading Program was developed as two design projects described below:

- Landfill Regrading Design #1 – The Design #1 addresses settlement along the eastern side slopes, eastern perimeter drainage channel and eastern access road. Repairs of the landfill gas control system are also included.
- Landfill Regrading Design #2 – Design #2 addresses settlement of the remaining portions of the FSL, including the southern, northern, and western side slopes and the top deck of the landfill. Design #2 activities are not currently included in the scope and budget for 2024.

This scope of work does not include any activities for Design #2 (Subtask 6.2). The descriptions below address Subtask 6.1 – Design #1.

Subtask 6.1 – Landfill Regrading Program - Design #1: Drainage Channel Regrading and Gas Control System Maintenance

Subtask 6.1 – Landfill Regrading Program Design #1– Design for the project titled *East Slope Drainage Regrading and Gas System Upgrades Project* was initiated in 2021 and completed in 2022 with submittal of the 100% design documents in June 2022.

Objectives

- Provide bid period and construction period support services associated with construction of Design #1.

Activities

Bid Period Services

Bid Period Services for Design #1 is expected to be performed during October or November 2023. This subtask will include participation in the City's pre-bid conference and preparation of responses to Bid Period requests-for-information (RFIs). It is assumed that this task will be limited to 50 labor hours.

Construction Period Services

Construction Period Services are expected to be performed beginning in Spring 2023. This subtask will consist of Contractor submittal review, preparing responses to construction RFIs, and periodic construction oversight. Construction oversight can include specialty inspection, targeted participation in construction meetings, assistance in change order preparation,

assistance in claims support, and assistance in preparation of a project punch list. It is assumed that this task is limited to 100 labor hours.

Reporting

This subtask will consist of preparing a Tech Memo to document the Task 6 construction efforts. The Tech Memo is intended for submittal to the USEPA. Given that this construction project is a maintenance project, the report will be less detailed than the Interim Remedial Action Report that had been prepared to document past remedial action construction activities performed at the FSL.

Assumptions

- Up to two visits to the FSL by CDM Smith staff during the Bid Period.
- Up to five visits to the FSL by CDM Smith staff during the Construction Period.

Deliverables

- Prepare responses to Contractor RFIs during and following the bid period.
- Prepare a tech memo to document the Design #1 construction activities.

Schedule

The scope of work and budget presented above reflects project duration from September 2023 through December 2024. The schedule for project deliverables is provided below:

Annual and or Periodic Deliverables

1. Quarterly Reports – **October 2023; January, April, July, and October 2024; and January and April 2025.**
2. OU-2 Regulatory Interim Data Transmittal – **January 31, 2024 and January 31, 2025**
3. OU-1 Annual Report – **February 31, 2024 and February 31, 2025.**
4. Technical Memorandum to document the annual well performance evaluation – **July 2024.**
5. OU-2 Annual Performance Monitoring Program Report – **July 31, 2024.**
6. New Well Evaluations – The results of groundwater modeling to evaluate proposed new agricultural or domestic water supply wells will be documented in a brief letter report to the City. This work will be performed on an as-needed basis throughout the contract period. – **As needed.**
7. Responses to Comments from EPA on technical deliverables – **As needed.**

One-time Deliverables

1. Vapor Intrusion Evaluation Report of Findings – **Within 3 months following receipt of all analytical data.**
2. Task 6.1 Design Deliverables:

- Responses to Construction Contractor Requests for Information (RFIs) during pre-construction activities – **As needed.**
- Design #1 Construction Completion Tech Memo Budget – **2 months following construction completion.**

The cost for the work described above is \$644,753. A cost breakdown is shown on Table 1 – Groundwater and Landfill Remediation Services, Budget for Year 2023 (Supplemental) through June 2025, Fresno Sanitary Landfill (OU-1 and OU-2). This estimate constitutes the budget for services during Year 2023 (Supplemental) through June 2025.

Table 1
Groundwater and Landfill Remediation Services
Budget for Year 2023 (Supplemental) through June 2025
Fresno Sanitary Landfill (Operable Unit-1 and Operable Unit-2)

Task Description		Labor	ODCs	OPs	Total
		\$	\$	\$	\$
Task 1	Performance Monitoring Program	\$192,996	\$23,270	\$70,480	\$286,747
	GW Monitoring Activities	\$85,796	\$20,812	\$67,124	\$178,129
	Monitoring Assistance	\$28,650	\$1,050	\$0	\$29,753
	Environmental Database Management	\$10,650	\$0	\$0	\$10,650
	Responses to Comments	\$28,200	\$0	\$0	\$28,200
	OU-2 Annual Report (submittal date: July)	\$23,100	\$300	\$0	\$23,415
	OU-2 Regulatory Data Transfer (submittal date: January)	\$16,600	\$0	\$0	\$16,600
Task 2	Remedial Action Systems Operations Assistance	\$79,100	\$840	\$0	\$79,940
	Annual Evaluation of Extraction Well Performance	\$11,800	\$0	\$0	\$11,800
	OU-1 Annual Report	\$26,000	\$400	\$0	\$26,420
	New Water Supply Well Evaluations	\$17,250	\$0	\$0	\$17,250
	Landfill Inspection and Maintenance Assistance	\$5,300	\$400	\$0	\$5,720
	Groundwater Modeling	\$18,750	\$0	\$0	\$18,750
Task 3	Superfund Site Delisting Pathway -- Planning	\$0	\$0	\$0	\$0
Task 4	Field Investigation Activities	\$81,500	\$4,200	\$35,700	\$121,400
Subtask 4.1	Vapor Intrusion Investigation - Round 3				
	Work Plan Addendum	\$14,300	\$0	\$0	\$14,300
	Pre-field planning	\$6,000	\$0	\$0	\$6,000
	Sampling fieldwork	\$27,500	\$4,000	\$34,000	\$67,400
	VI Results Letter Report	\$20,000	\$0	\$0	\$20,000
Subtask 4.2	SEM Program				
	SEM Consulting	\$4,200	\$0	\$0	\$4,200
	SEM Reporting	\$9,500	\$0	\$0	\$9,500
Task 5	Project Management/Project Meetings	\$91,950	\$3,497	\$0	\$95,447
	Project Management -- January through December	\$51,000	\$1,530	\$0	\$52,607
	Project Meetings -- January through December	\$26,250	\$900	\$0	\$27,195
	Quarterly Progress Reports	\$14,700	\$900	\$0	\$15,645
Task 6	Landfill Regrading/Control Systems Repair Design	\$58,700	\$2,520	\$0	\$61,220
Subtask 6.1	Design #1				
	Bid Period Services	\$17,000	\$600	\$0	\$17,630
	Construction Period Services	\$41,700	\$1,800	\$0	\$43,590
TOTALS		\$504,246	\$34,327	\$106,180	\$644,753

Notes:

1. CDM Smith will complete the tasks listed in the table on a time and materials basis, not to exceed a total of \$644,753.
2. Labor costs will be billed at actual salary rates times a 3.05 multiplier.
3. 'Other Direct Costs' (ODCs) and 'Outside Professional' (OPs) charges will be billed with a 5% mark-up.