

# **Request for Bid**

**Fixed-Price Defined Scope of Work**

**Preparation of Remedial Action Plan, Implementation of Remedial Actions, Quarterly Groundwater Monitoring/Reporting, and Preparation of Remedial Action Completion Report**

## **Solicitor**

**Douglas and Rita Semingson**

**Marie's Service Station  
404 New Alexandria Road  
Greensburg, PA 15601**

**PADEP Facility ID #: 65-80800      PAUSTIF Claim #: 19960307(F)**

## **Date of Issuance**

**May 8, 2020**

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The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF), on behalf of the claimant who hereafter is referred to as the Client or Solicitor, is providing this Request for Bid (RFB) to prepare and submit a bid to complete the Scope of Work (SOW) for the referenced Site. The Solicitors are Doug and Rita Semington, the current owners of the Site. PAUSTIF has determined that the claim reported by the Solicitor is eligible for coverage from the PAUSTIF subject to the applicable statutes and regulations. Reimbursement of Solicitor approved reasonable and necessary costs, not to exceed the claim aggregate limit, for the corrective action work described in this RFB will be provided by PAUSTIF. The deductible has been met and no proration is applicable.

Each bid response will be considered individually and consistent with the evaluation process described in the PAUSTIF Competitive Bidding Fact Sheet which can be downloaded from the PAUSTIF website <https://ustif.pa.gov>.

## Calendar of Events

<b>Activity</b>	<b>Date and Time</b>
Required Notification of Intent to Attend Site Visit (due to COVID-19 pandemic this is a required activity)	May 22, 2020 by 5 p.m.
Mandatory Pre-Bid Site Visit (The Technical Contact will provide a scheduled time to each person who submits a Notification to Attend Site Visit.)	June 2, 2020
Deadline to Submit Questions	June 12, 2020 by 5 p.m.
Bid Due Date and Time	June 26, 2020 by 3 p.m.

## Contact Information

Technical Contact
<p data-bbox="570 468 1065 632"><b>Daniel Delp, P.E., P.G.</b> <b>Groundwater Sciences Corporation</b> <b>2601 Market Place Street, Suite 310</b> <b>Harrisburg, PA 17710</b> <b>ddelp@groundwatersciences.com</b></p>

All questions regarding this RFB and the subject Site conditions must be directed via email to the Technical Contact identified above with the understanding that all questions and answers will be provided to all bidders. The email subject line must be “**Marie’s Service Station – 19960307(F) – RFB QUESTION**”. Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or ICF unless approved by the Technical Contact. Bidders may discuss this RFB with subcontractors and vendors to the extent required for preparing the bid response.

## Requirements

### Mandatory Pre-Bid Site Meeting

On behalf of the Solicitor, the Technical Contact, or their designee will hold a mandatory Site visit on the date listed in the Calendar of Events to conduct a Site tour for one (1) participant per bidding company. The Technical Contact may answer questions at the Site meeting or may collect questions and respond via email. All questions and answers will be provided via email to all attendees. This meeting is mandatory for all bidders, no exceptions. This meeting will allow each bidding company to inspect the Site and evaluate Site conditions. Due to the circumstances surrounding the COVID-19 pandemic, the number of attendees on-site at the same time will be limited to one (1) participant; and, all attendees should follow CDC safety guidelines. **A notice of the bidder's intent to attend this meeting is required to be provided to the Technical Contact via email by the date listed in the Calendar of Events with the subject "Marie's Service Station – 19960307(F) – SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the email. A detailed schedule for the mandatory pre-bid site meeting, including arrival and departure times for participants, will be distributed via email to the attendees within two (2) business days after the due date for the Required Notification of Intent to Attend Site Visit in the Calendar of Events. Attendance at the Pre-Bid Site Meeting is mandatory and each attendee must check in with the Technical Contact on site to record attendance. Changes to the Site meeting date and/or time due to inclement weather conditions or other unexpected circumstances will be posted at <https://ustif.pa.gov/bids>; and, the Technical Contact may notify via email all companies that provided Site Meeting Attendance Notification.

### Submission of Bids

To be considered for selection, an electronic .pdf version of the signed bid package must be submitted to [RA-BidSubmission@fms.icfwebservices.com](mailto:RA-BidSubmission@fms.icfwebservices.com) by the bid due date and time in the Calendar of Events. Bid Cost Spreadsheets may be submitted in Microsoft Excel format. File sizes in excess of 5 MB are to be submitted using a file share service of your choosing. If you do not have access to a file share service, an email must be sent to [RA-BidSubmission@fms.icfwebservices.com](mailto:RA-BidSubmission@fms.icfwebservices.com) at least 24 hours prior to the bid due date and time to request access to PAUSTIF's third party administrator, ICF, file share service. Reply messages will be sent to acknowledge receipt of all emails. Bids attempted to be submitted through ground services such as USPS, UPS, Fed-Ex, etc. or hand delivery will not be considered for selection.

**The bid must be received by 3 p.m., on the due date shown in the Calendar of Events.** Bids will be opened immediately after the 3 p.m. deadline on the due date. Any bids received after this due date and time will be returned. If, due to inclement weather, natural disaster, or any other cause, the PAUSTIF's third party administrator, ICF's office is closed on the bid due date, the

deadline for submission will automatically be extended to the next business day on which the office is open. The PAUSTIF's third party administrator, ICF, may notify all companies that attended the Mandatory Pre-Bid Site Meeting of an extended due date. The hour for submission of bids shall remain the same. Submitted bid responses are subject to the Pennsylvania Right-to-Know Law.

## **Bid Requirements**

The Solicitor wishes to execute a mutually agreeable contract with the selected consultant ("Remediation Agreement"). The Remediation Agreement is included as Attachment 1 to this RFB. The bidder must identify and document in their bid any modifications that they wish to propose to the Remediation Agreement language in Attachment 1 other than obvious modifications to fit this RFB (e.g., names, dates, and descriptions of milestones). The number and scope of any modifications to the standard agreement language will be one (1) of the criteria used to evaluate the bid. **Any bid that does not clearly and unambiguously state whether the bidder accepts the Remediation Agreement language in Attachment 1 "as is", or that does not provide a cross-referenced list of requested changes to this agreement, will be considered non-responsive.** This statement should be made in a Section in the bid entitled "Remediation Agreement". Any proposed changes to the agreement should be specified in the bid; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PAUSTIF.

The selected consultant will be provided an electronic copy (template) of the draft Remediation Agreement in Microsoft Word format to allow agreement-specific information to be added. The selected consultant shall complete the agreement-specific portions of the draft Remediation Agreement and return the document to the Technical Contact within 10 business days from date of receipt.

The Remediation Agreement fixed costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors, and other direct costs. The total cost quoted in the bid by the selected consultant will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable and necessary. There may be deviations from and modifications to this SOW during the project. The Remediation Agreement states that any significant changes to the SOW will require approval by the Solicitor, PAUSTIF, and PADEP. NOTE: Any request for PAUSTIF reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

The bidder shall provide its bid cost using the Bid Cost Spreadsheet (included as Attachment 2) with descriptions for each task provided in the body of the bid document. Please note, if costs are provided within the text of the submitted bid and there is a discrepancy between costs listed in the Bid Cost Spreadsheet and in the text, the costs listed within the Bid Cost Spreadsheet will

be used in the evaluation of the bid and in the Remediation Agreement with the selected consultant. Bidders are responsible to ensure spreadsheet calculations are accurate. The technical score for bids will be based solely on those tasks represented as milestones included in the Bid Cost Spreadsheet and the total bid cost. Any optional bidder-defined tasks, milestones, or cost adders that are not requested as part of this RFB will not be considered by the Bid Evaluation Committee in the technical review and technical score for the bid.

In addition, the bidder shall provide:

1. The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs, and equipment;
2. The bidder's proposed markup on other direct costs and subcontractors (if any);
3. The bidder's estimated total cost by task consistent with the proposed SOW identifying all level-of-effort and costing assumptions; and
4. A unit rate schedule that will be used for any out of scope work on this project.

Each bid will be assumed to be valid for a period of up to 120 days after receipt unless otherwise noted. The costs quoted in the Bid Cost Spreadsheet will be assumed to be valid for the duration of the Remediation Agreement.

Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable". These variable cost items will not be handled outside of the total fixed-price quoted for the SOW unless the RFB requests costing alternatives for specific items or services. Any bid that disregards this requirement will be considered non-responsive to the bid requirements and, as a result, will be rejected and will not be evaluated.

The RFB is requesting a total fixed-price bid (unless the RFB requests costing alternatives for specific items or services). PAUSTIF will not agree to assumptions (in bids or the selected bidders executed Remediation Agreement) referencing a level of effort and/or hours. Costs provided in your bid should be developed using your professional opinion, experience, and the data provided. PAUSTIF will not reimburse costs for additional hours to complete activities included as part of the base bid/contract price.

Each bid response document must include at least the following:

1. Demonstration of the bidder's understanding of the Site information provided in this RFB, standard industry practices, and objectives of the project.

2. A clear description, specific details, and original language of how the proposed work scope will be completed for each milestone. The bid should specifically discuss all tasks that will be completed under the Remediation Agreement and what is included (e.g., explain groundwater purging/sampling methods, which guidance documents will be followed, what will be completed as part of the Site specific work scope/SCR/RAP implementation). Recommendations for changes/additions to the Scope of Work proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to bid the SOW “as is” may result in a bid not being considered.
3. A copy of an insurance certificate that shows the bidder’s level of insurance consistent with the requirements of the Remediation Agreement. Note: The selected consultant shall submit evidence to the Solicitor before beginning work that they have procured and will maintain Workers Compensation, commercial general and contractual liability, commercial automobile liability, and professional liability insurance commensurate with the level stated in the Remediation Agreement and for the work to be performed.
4. The names and brief resumes/qualifications of the proposed project team including the proposed Professional Geologist and Professional Engineer (if applicable) who will be responsible for overseeing the work and applying a professional seal to the project deliverables (including any major subcontractor(s)).
5. Responses to the following specific questions:
  - a. Does your company employ a Pennsylvania-licensed Professional Geologist that is designated as the proposed project manager? How many years of experience does this person have?
  - b. How many Pennsylvania Chapter 245 projects is your company currently the consultant for in the PADEP Region where the Site is located? Please list up to 10.
  - c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP, and RACR has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained Relief from Liability from the PADEP) using any standard?
  - d. Has your firm ever been a party to a terminated PAUSTIF-funded Fixed-Price (FP) or Pay-for-Performance (PFP) contract without attaining all of the milestones? If so, please explain.
6. A description of subcontractor involvement by task. Identify and describe the involvement and provide actual cost quotations/bids/proposals from all significant specialized subcontracted service (e.g., drilling/well installations, laboratory, etc.). If a bidder chooses to prepare its bid without securing bids for specialty subcontract services, it does so at its own risk. Added costs resulting from bid errors, omissions, or faulty assumptions will not be considered for PAUSTIF reimbursement.



7. A detailed schedule of activities for completing the proposed SOW including reasonable assumptions regarding the timing and duration of Solicitor reviews (if any) needed to complete the SOW. Each bid must provide a schedule that begins with execution of the Remediation Agreement with the Solicitor and ends with completion of the final milestone proposed in this RFB. Schedules must also indicate the approximate start and end date of each of the tasks/milestones specified in the Scope of Work, and indicate the timing of all proposed key milestone activities (e.g., within 30 days of the contract being executed).
8. A description of how the Solicitor, ICF, and the PAUSTIF will be kept informed as to project progress and developments and how the Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project.
9. A description of your approach to working with the PADEP. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed of activities at the Site.
10. Key exceptions, assumptions, or special conditions applicable to the proposed SOW and/or used in formulating the proposed cost estimate. Please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exceptions may result in the bid response being deemed “unresponsive”.

## **General Site Background and Description**

Each bidder should carefully review the existing information and documentation provided in Attachment 3. The information and documentation has not been independently verified. Bidders may wish to seek out other appropriate sources of information and documentation specific to this Site. If there is any conflict between the general Site background and description provided herein and the source documents within Attachment 3, the bidder should defer to the source documents.

### **Site Address**

404 New Alexandria Road  
Greensburg, PA 15601  
Hempfield Township, Westmoreland County

### **Site Description and Operation History**

The Site property, which is approximately 0.2 acres in size, is located at the intersection of State Route 119/Alexandria Road, State Route 819/Harvey Avenue, and Roosevelt Way in Greensburg, Hempfield Township, Westmoreland County (Figure 1 in Attachment 3a). The Site property is served by public water and sewer. Electricity is provided via overhead lines and subsurface water, sewer, and natural gas utilities enter the Site property from Roosevelt Way.

There is one, currently vacant, building located on the Site property. A two-bay garage, accessible from the northern side of the building is located in the eastern third of the Site building and a single-bay garage, accessible from the western side of the building, is located in the western third of the Site building. An open area, an office, and restrooms occupy the center third of the building. A basement, partially exposed to Roosevelt Avenue, is located beneath the center third of the Site building.

Between 1935 and 1989, the Site was operated as Marie's Service Station, a retail gasoline filling station and automotive service center. In 1989, the Solicitor purchased the Site and operated it as a retail gasoline filling station and automotive service center. Between 1998 and 2010, Diamond Auto Glass leased the property as an auto glass repair facility and between 2010 and August 2017, Superior Auto Glass leased the property as an auto glass repair facility. . The Site has remained unoccupied since 2008.

Five underground storage tanks (USTs) (Tanks 001 through 005) are known to have existed at the Site property. Three USTs (Tanks 001, 002, and 003) contained gasoline, one UST (Tank 004) contained diesel fuel, and one UST (Tank 005) was used for waste oil. All five USTs were operated until they were closed in 1996. Tanks 001 through 004 were closed by removal (along with their dispensing equipment) and Tank 005 was closed in place. Tanks 001 and 002 were located along the northern side of the Site building. Tank 003 was located to the east of the Site building, along the eastern property boundary. Tank 004 was located to the west of the Site

building. The dispensers associated with Tanks 001 through 004 were located to the north of Tanks 001 and 002, between the tanks and State Route 119/New Alexandria Road. Tank 005 is located beneath the floor of the two-bay garage located in the eastern third of the Site building. The locations of the former USTs and the closed-in place UST are shown on Figure 2 in Attachment 3a. A summary of the known USTs removed from the Site is listed below:

UST Number	Product Stored	Capacity (gallons)	Year Installed	Year Closed/ Method of Closure
001	Unleaded Gasoline	2,000	1985	1996/Removal
002	Unleaded Gasoline	4,000	1985	1996/Removal
003	Unleaded Gasoline	4,000	1985	1996/Removal
004	Diesel Fuel	1,000	1985	1996/Removal
005	Waste Oil	1,000	Unknown	1996/In-place

### **Surrounding Land Use**

The area surrounding the Site is mixed residential, commercial, and industrial properties. The triangular-shaped Site property is bound to the north/west State Route 119/New Alexandria Road, to the south/west by Roosevelt Way, and to the east by a commercial property, occupied by Dagwood's Subs-N-Suds and Scooby's Pub. The intersection of New Alexandria Road and Roosevelt Way is located immediately to the west of the Site. A Sheetz gasoline station is located beyond New Alexandria Road to the north, residential properties are located beyond the New Alexandria Road/Roosevelt Way intersection to the west, and an elevated railroad right-of-way is located beyond Roosevelt Way to the south. Mixed residential and industrial properties are located beyond the elevated railroad property to the south.

### **Physiography and Topography**

The topography coincident with the front and sides of the Site building is generally flat with an elevation of approximately 1,025 feet above mean sea level (famsl). The topography coincident with the rear of the Site building is lower, at an approximate elevation of 1,016 famsl. As a result of the elevation difference there is a steep slope along each side of the Site building and the basement of the Site building is at grade along Roosevelt Avenue. Beyond Roosevelt Avenue to the south, the topography steeply increases to the railroad right-of-way. The railroad right-of-way in the vicinity of the Site is approximately 1,080 famsl. The topography steeply decreases to the south of the railroad right-of-way to an elevation consistent with the Site elevation.

### **Site Geology/Hydrogeology**

The regional geology underlying the Site is the Pennsylvanian-aged Monongahela Group. The Monongahela Group consists of cyclic sequences of limestone, shale, sandstone, and coal. According to well logs prepared by others, weathered sandstone bedrock was encountered beneath the Site as shallow as four feet below grade (fbg) to the north of the Site building and as

shallow as one fbg to the south of the Site building. Unconsolidated materials overlying bedrock beneath the Site reportedly consists mainly of backfill material.

The groundwater table beneath the Site property is in the sandstone bedrock. The depth-to-water at the Site generally ranges from approximately 11 to 18 fbg to the north of the Site building and from approximately 6 to 10 fbg to the south of the Site building. The inferred direction of groundwater flow is to the south/southwest towards Jacks Run, the nearest surface water body. Jacks Run, located approximately 300-feet to the east/southeast, flows south through a penetration in the elevated railroad right-of-way and through Greensburg. South of Greensburg, Jacks Run discharges to Sewickley Creek, which is a tributary to the Youghiogheny River.

### **Nature of Confirmed Release and Subsequent Corrective Action Activities**

In July 1996, Guttman Oil Company filled Tank 002, a mid-grade gasoline UST, with regular-grade gasoline. After discovering the error, the Guttman Oil Company employee disconnected the hose without emptying the remaining gasoline product from the hose, resulting in the surficial release of an unknown quantity of gasoline.

Subsequent to the release, Cook Environmental Engineering, Inc. (Cook) was contracted to oversee the closure by removal of the three unleaded gasoline USTs (Tanks 001, 002, and 003), the diesel fuel UST (Tank 004), and all associated dispensers and product piping by Precise Tank Modifications (PTM). The used motor oil UST (Tank 005) was closed in place and filled with a slurry mix.

Due to the presence of obvious extensive contamination and shallow bedrock beneath Tanks 001 and 002, UST closure samples were not collected. Approximately 75-tons of petroleum impacted soil were removed from the vicinity of Tanks 001 and 002 and disposed at Valley Landfill in Irwin, PA.

Three soil samples were collected from beneath Tank 003 and two soil samples were collected from beneath Tank 004 during closure. According to the November 7, 1996 UST closure report, the reported concentrations of analyzed substances in the UST closure soil samples collected during the closure of Tanks 003 and 004 were below the Non-Residential Used Aquifer (NRUA) Statewide Health Standard (SHS) Medium Specific Concentrations (MSCs). No soil samples were collected at the time Tank 005 was closed in place because, according to the UST Closure Report, "soil borings were not practical" and "this situation will be addressed in the Site Characterization". The UST Closure Report is included as Attachment 3b.

Subsequent to the closure of the five USTs, Cook performed site characterization activities. The characterization activities included the advancement of three soil borings (SB-1, B-2, and SB-3) and the installation of groundwater monitoring wells in the soil borings (MW-1, MW-2, and MW-3, respectively) in March 1997. SB-1/MW-1 was installed in the northeastern portion of the Site and SB-2/MW-2 and SB-3/MW-3 were installed within the footprint of former Tanks 004 and 003,

respectively. No soil samples were collected from the soil borings and concentrations of unleaded gasoline substances were reported in groundwater samples collected from MW-1 and MW-3 above NRUA SHS MSCs. In May 1997, Cook submitted to the PADEP a Site Characterization Report (SCR). The locations of groundwater monitoring wells and soil borings are shown on Figures 2 and 3, respectively in Attachment 3a. The May 1997 SCR is included in Attachment 3c.

In correspondence dated June 4, 1997, the PADEP acknowledged receipt and review of, and commented on, the UST Closure Report and the May 1997 SCR. Of note, the PADEP concluded that “the extent and degree of known soil contamination on the site has not been delineated” and Tank 005 was “closed in place with no assessment” and, as a result, “until the impacts noted during the closure activities (soil contamination and closure in place) are assessed a Remedial Action Plan or Remedial Action Completion report cannot be prepared or reviewed by the Department”.

Despite correspondence between Cook and the PADEP describing proposed characterization activities, no characterization activities occurred at the Site until a Phase I Environmental Site Assessment (ESA) was performed in 2008. The ESA, which was performed by a prospective buyer, revealed that relief from liability for the 1996 release had not been obtained.

KU Resources (KU) resumed corrective actions at the Site in 2009. Corrective actions performed by KU included:

- Performance of a PADEP file review;
- Installation and sampling of ten soil borings (KU-01 through KU-10);
- Installation of five groundwater monitoring wells (MW-4 through MW-8);
- Collection of two bedrock core samples (from MW-6 and MW-7)
- Installation and sampling of four soil vapor sampling points (SG-01 through SG-04);
- Performance of slug testing and pump testing;
- Performance of a bedrock fracture trace analysis;
- Collection of groundwater samples from the on-site groundwater monitoring well network;
- Performance of a water well survey and a sensitive receptor survey; and
- Preparation and submittal of a Site Characterization Report.

During the soil boring installation, soil samples were collected from the soil/bedrock interface in soil borings KU-01, KU-03, KU-5, and KU-07 through KU-10. Soil samples were not collected from soil borings KU-02, KU-04, and KU-06 due to shallow bedrock refusal. Separate-phase liquid (SPL) was measured in monitoring wells MW-5, MW-7, and MW-8. The locations of the groundwater monitoring wells, soil borings, and soil vapor sampling points are shown on Figures 2, 3, and 4, respectively in Attachment 3a. The results of the corrective action work performed

by KU were documented in an SCR dated October 28, 2009. The October 28, 2009 SCR is included in Attachment 3d.

On August 12, 2010, a mobile dual phase extraction system (DPE) was installed and extracted groundwater and SPL from monitoring well MW-7. Approximately 40-gallons of SPL were reportedly removed from MW-7 in eight hours. The DPE system was subsequently reconfigured to extract groundwater and SPL from monitoring wells MW-5 and MW-8. The reconfigured system was activated on August 23, 2010 and operated until August 30, 2010. A total of 26,620-gallons of groundwater was reportedly extracted, treated, and discharged in accordance with a NPDES permit. On August 30, 2010, SPL was discovered in monitoring wells MW-3 and MW-4. Although the mobile DPE system was reportedly removed from the Site on September 10, 2010, DPE of groundwater continued at the Site in some capacity through March 2011. SPL has not been reported in any of the monitoring wells since September 17, 2011.

On May 13, 2011, PAUSTIF published a competitive bid solicitation to complete additional site characterization activities. The additional site characterization included:

- Obtaining off-site access to four properties;
- Performing a professional engineering survey of the sanitary sewer line along Roosevelt Way;
- Abandoning groundwater monitoring wells MW-1, MW-2, and MW-3;
- Installing replacement bedrock groundwater monitoring wells MW-1R, MW-2R, and MW-3R;
- Installing seven off-site bedrock groundwater monitoring wells;
- Collecting groundwater samples; and
- Preparing an SCR.

Core Environmental Services, Inc. (Core) was the selected bidder and in June 2012, groundwater monitoring wells MW-1, MW-2, and MW-3 were abandoned and monitoring wells MW-1R, MW-2R, MW-3R, and MW-109 through MW-112 were installed. Seven soil samples, one soil sample from each well location, were collected during the boring advancement. The additional characterization work was documented in an SCR dated September 2013. The SCR included the results of the soil sampling, Site groundwater sampling, and sampling of the two groundwater monitoring wells (MW-10 and MW-33D) installed on the up-gradient Sheetz property. The SCR concluded that “potential release from the up-gradient Sheetz facility have not impacted the site based on non-detect concentrations being observed in Sheetz-owned monitoring wells”, “unleaded gasoline constituents have not been detected in the soil at concentration above the R-SHS [residential statewide health standard]”, and specified the Site-Specific Standard (SSS) as the remedial goal for groundwater at the Site and the Residential Used Aquifer (RUA) SHS MSC as the remedial goal for soil at the Site. The locations of the groundwater monitoring wells and soil borings are shown on Figures 2 and 3 in Attachment 3a. The September 2013 SCR is included as Attachment 3e.

The PADEP approved the September 2013 SCR in correspondence dated December 12, 2013.

In March 2014, Core submitted to the PADEP a Remedial Action Plan (RAP). The RAP included a “conceptual property model and risk assessment”, the results for groundwater sampling performed subsequent to the submission of the September 2013 SCR (including the collection of samples from Sheetz-owned wells MW-10 and MW-33D in October 2013), the results for soil vapor samples collected from three of the four pre-existing soil vapor monitoring points (SG-01, SG-02, and SG-04) in January and February 2014, and a remedial alternatives analysis. The RAP concluded that “active remediation is not necessary” and proposed two years of quarterly groundwater sampling to evaluate the plume geometry and confirm modeling results, two additional rounds of soil vapor sampling during the last quarter of groundwater monitoring for incorporation into the risk assessment, and the use of an environmental covenant on the Site property and potentially on the property to the east to eliminate potential future pathways to allow for closure using the SSS. The March 2014 RAP is included as Attachment 3f.

The PADEP approved the March 2014 RAP in correspondence dated June 10, 2014.

In September 2016, Core submitted to the PADEP a Remedial Action Completion Report (RACR). The RACR provided the results for groundwater samples collected from the Site monitoring wells subsequent to the submission of the March 2014 RAP and concluded that attainment of the SSS for groundwater and the RUA SHS for soil was complete. The September 2016 RACR is included as Attachment 3g.

The September 2016 RACR was disapproved by the PADEP in correspondence dated December 30, 2016. The PADEP listed the following reasons for the disapproval:

- Groundwater monitoring results did not show stable or decreasing source area concentrations, or attainment with the SSS at the property boundary point-of-compliance and off-property. Source area contaminant concentrations, represented by monitoring well MW-6, show an increasing trend versus time.
- Monitoring well locations that are not in attainment with the developed SSS include on-property POC monitoring well MW-3R, and off-property monitoring wells MW-109 and MW-110.

On February 1, 2017, Core met with the PADEP to discuss the collection of additional data to demonstrate attainment of the SSS for groundwater. Based on the meeting, Core performed additional site characterization activities in April 2017. The additional site characterization activities included the review of PADEP files for adjacent properties, including the Sheetz property and the former Rosey’s Sunoco (located approximately 300 feet to the east of the Site) and the installation and sampling of six soil borings (SB-1 through SB-6) and one groundwater monitoring well (MW-113). One soil sample was also collected during the installation of MW-113. The locations of the groundwater monitoring well and soil borings are shown on Figures 2 and 3, respectively in Attachment 3a.

On April 25, 2017, Core submitted to the PADEP a Remedial Action Plan Addendum (RAPA). The RAPA proposed the installation of two recovery wells (RW-1 and RW-2) and a maximum of 12 bi-weekly DPE remediation events using a vacuum truck and subsequent groundwater attainment sampling. The locations of the recovery wells are shown on Figure 2 in Attachment 3a. The RAPA was reportedly approved by the PADEP on May 19, 2017. The RAPA is included as Attachment 3h.

Since the submission of the RAPA, Core has submitted to the PADEP quarterly Remedial Action Progress Reports (RAPRs). Quarterly RAPRs that include information beyond the results of routine quarterly groundwater sampling are discussed below.

Second Quarter 2017 RAPR – The Second Quarter 2017 RAPR included the results of the April 2017 soil boring installation and sampling, installation and sampling of groundwater monitoring well MW-113, and logs for the soil borings and groundwater monitoring well MW-113. With regard to the soil samples, Core stated that “none of the soil sampling results are above the R-SHS [RUA SHS], except 1,2,4-trimethylbenzene [124TMB] at soil boring MW-113 located in the vicinity of former USTs 001 and 002”. It should be noted that the concentration of 124TMB was below the RUA SHS MSC. The Second Quarter 2017 RAPR is included as Attachment 3i.

Third and Fourth Quarter 2017 RAPRs – The Third and Fourth Quarter 2017 RAPRs included details on the DPE events performed between July and December 2017.

Second Quarter 2018 RAPR – The Second Quarter 2018 RAPR included a vapor intrusion (VI) evaluation. According to the Second Quarter 2018 RAPR, “at least five feet of soil or soil like material are present between the existing building foundation and bedrock” and all “soil sampling results indicate no exceedance of DEP soil SSS VI Screening Values (1/10<sup>th</sup> of the DEP soil SHS Screening Values”. The VI evaluation concluded that “no further VI evaluation to indoor air evaluation is warranted”.

First Quarter 2019 RAPR – The First Quarter 2019 RAPR proposed “supplemental SC activities to investigate potential residual petroleum hydrocarbons source in soil, based on the increase concentrations at monitoring well MW-6 and MW-109”. The First Quarter 2019 RAPR did not specify the supplemental SC activities.

Second Quarter 2019 RAPR – The Second Quarter 2019 RAPR presented the results of an off-property source evaluation, an on-site source evaluation, and the installation of groundwater monitoring well MW-114.

The off-property source evaluation was performed to address “potential sources in proximity to the site” and included the Sheetz property located at 211 Harvey Avenue, the Former Rosey’s Mobil Station located at 317 Harvey Avenue, and the orphaned USTs discovered by PennDOT within the right-of-way in 1992. The off-property source evaluation concluded that 1) “This information does not provide conclusive evidence that the Sheetz property is a source of dissolved unleaded gasoline in groundwater at the Former Maries’ Service Station”, 2) “Potential migration



of petroleum hydrocarbon along a potential preferential pathway (e.g. underground utilities) within the public Harvey Avenue right of way (ROW) between this property [the Former Rosey's Mobile Station] and the Former Marie's Service Station property cannot be ruled out, and 3) "it is unlikely that the orphan [PennDOT] USTs could be implicated as the sole source of hydrocarbons on the Marie's Service Station property".

The on-site source evaluation was performed on May 21, 2019, by scanning air drawn through soil vapor investigation points installed through the concrete floor of the building using a hand-held photoionization detector (PID). Soil vapor points SVI-01 and SVI-02 were drilled through the floor of the garage bay located in the western third of the Site building, SVI-03 through SVI-06 and SVI-08 were drilled through the basement floor, SVI-07 was located in an accessible elevated crawlspace located in the basement, and SVI-9 through SVI-14 were drilled through the floor of the garage bays located in the eastern third of the Site building. Sampling points could not be installed in SVI-01 and SVI-02 due to the concrete thickness and a sample could not be collected from SVI-07 because "the space beneath the concrete slab at this location consisted of an inaccessible crawlspace void". For these reasons, PID readings could not be obtained from SVI-01, SVI-02, and SVI-07. PID readings ranged from 10.8 to 315.7 parts per million volume (ppmv) in the samples collected from the soil investigation points in the eastern garage bays and 12.1 to 450.7 ppmv in the samples collected from the soil investigation points in the basement. Core concluded from the on-site source evaluation that "these results indicated a potential source associated with hydrocarbons along the north building foundation, and also potentially associated with a source beneath the floor slab".

Groundwater monitoring well MW-114 was installed on May 15, 2019 to "determine the presence/absence of a potential unleaded gasoline source at the former UST 001 and UST 002 vent locations located generally hydraulic up-gradient of monitoring well MW-109". Although elevated PID readings in weathered bedrock (488.7 to 2,422 ppmv) were measured, no soil sample was collected during the installation of MW-114.

Details of the additional site characterization work are provided in the Second Quarter 2019 RAPR included as Attachment 3j.

### **Soil, Groundwater, and Soil Vapor Conditions at the Site**

Twenty-one soil characterization samples were collected at the Site between 2009 and 2017. As shown on Figure 3 in Attachment 3a and Table 1 in Attachment 3k, all concentrations of all analyzed substances were below NRUA SHS MSCs.

Dissolved-phase concentrations of benzene, ethylbenzene, MTBE, naphthalene, and 124TMB were present in groundwater samples collected from the Site above the NRUA SHS MSC during the Fourth Quarter 2019 groundwater sampling event. Dissolved-phase plume maps for these substances are included as Figures 5 through 9 in Attachment 3a. As shown on these figures, dissolved phase plumes of petroleum substances extend beyond the eastern and southern

property boundaries. The laboratory report for the Fourth Quarter 2019 groundwater sampling event performed by Core is included as Attachment 3I.

Measurable SPL has not been observed at the Site since September 17, 2011.

## **Scope of Work (SOW)**

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. In general, the SOW includes the preparation of a Revised Remedial Action Plan, the installation of injection wells, the injection of PetroFix™ Remedial Fluid, and the preparation of a Remedial Action Completion Report. The purpose of the remedial approach contained within this RFB is to reduce concentrations of dissolved-phase substances in groundwater such that stable or declining concentration trends are established to allow for attainment of Site Specific Standard for groundwater. Attainment of the Non-Residential Used Aquifer Statewide Health Standard for soil can be demonstrated through previous soil sampling. The Site owner has agreed to place an Environmental Covenant on the Site property to restrict the future use of groundwater. The remedial approach contained within this RFB was developed based on input from the PADEP Case Manager. The PADEP reviewed and provided comments on this RFB.

### **Objective**

This RFB requests a fixed-price to complete the injection of PetroFix™ Remedial Fluid to establish declining concentrations trends of dissolved-phase unleaded gasoline substances in groundwater to allow for the successful closure of the Site (using the Site Specific Standard for groundwater and the SHS for soil). Each bid must detail the approach and specific methods for achieving the milestone objectives.

### **Constituents of Concern (COCs)**

The COCs for this Site are the constituents identified on the PADEP shortlist of unleaded gasoline. Specifically, the COCs are benzene, toluene, ethylbenzene, total xylenes, cumene, naphthalene, MTBE, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene.

### **General SOW Requirements**

The Milestones presented below are separated into two categories; Base Scope of Work Milestones and Optional Milestones. The Base Scope of Work Milestones (Milestones A through I) represent the level of effort deemed reasonable to successfully complete the corrective action process and obtain relief from liability for the Site. The Optional Milestones (Milestones J through O) capture unit costs to adjust the reimbursement for Base Scope of Work Milestones when deemed reasonable or necessary and/or represent additional activities that may be reasonable and necessary to achieve the objective of the SOW. The initiation of any of the Optional Milestones will require approval from the Solicitor and PAUSTIF (for funding consideration).

The bidder's approach to completing the SOW shall be in accordance with generally accepted industry standards/practices and all applicable federal, state, and local rules, regulations, guidance, and directives. The latter include, but are not limited to, meeting the applicable requirements of the following:

- The Storage Tank and Spill Prevention Act (Act 32 of 1989, as amended);
- Pennsylvania Code, Title 25, Chapter 245 - Administration of the Storage Tank Spill and Prevention Program;
- The Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2), as amended);
- Pennsylvania Code, Chapter 250 - Administration of Land Recycling Program;
- The PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101); and
- Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 121 of 2008.

During completion of the milestone objectives specified below and throughout implementation of the project, the selected consultant shall:<sup>1</sup>

- Conduct necessary, reasonable, and appropriate project planning and management activities until the project (i.e., Remediation Agreement) is completed. Such activities may include Solicitor communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities (e.g., utility location). Project planning and management activities will also include preparing and implementing plans for health and safety, waste management, field sampling/analysis, and/or other plans that are necessary and appropriate to complete the SOW, and shall also include activities related to establishing any necessary access agreements. Project planning and management shall include identifying and taking appropriate safety precautions to not disturb Site utilities including, but not limited to, contacting Pennsylvania One Call as required prior to any ground-invasive work. As appropriate, project management costs shall be included in each bidder's pricing to complete the milestones specified below.
- Be responsible for coordinating, managing, and completing the proper management, characterization, handling, treatment, and/or disposal of all impacted soils, water, and derivative wastes generated during the implementation of this SOW. The investigation-derived wastes, including purge water, shall be disposed in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor

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<sup>1</sup> As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.

and the PAUSTIF upon request. All investigation derived wastes shall be handled and disposed per PADEP's Regional Office guidance. It is the selected consultant's responsibility to conform with current PADEP Regional Office guidance requirements in the region where the Site is located.

- Be responsible for providing the Solicitor and facility operator with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and facility operator to ensure that appropriate areas of the property are accessible. Return visits to the Site will not constitute a change in the selected consultant's SOW or result in additional compensation under the Remediation Agreement.

### **Project-Specific Guidelines**

As part of this RFB, the selected consultant shall consider the following project-specific guidelines:

- **Field Activities:** The selected bidder shall provide a 72-hour notification of all pending on-site work to the Solicitor.
- **Responsibility:** Upon execution of the Remediation Agreement, the selected bidder shall become the consultant of record for the Site and the Solicitor. It shall be expected that the selected bidder will represent the interest of the Solicitor and PAUSTIF during the execution of all aspects of the project associated with this RFB.
- **Safety Measures:** Each consultant should determine the level of safety measures needed to appropriately complete all milestones. Specifically, if a consultant feels it is appropriate and necessary to complete additional safety measures other than or beyond what is required in the SOW, the cost should be included in their proposal and costs. More importantly, if a consultant includes the cost to complete safety activities, they should specify it in their proposal and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.

**Milestones Requiring Approval Prior to Initiation:** The SOW contained within this RFB includes optional milestones that may not be reasonable and necessary to perform based on the information gathered by the selected bidder upon completion of the base scope of work milestones. For this reason, the selected bidder shall be required to obtain approval from the Solicitor and PAUSTIF (for funding consideration) prior to initiating any of the optional milestones (listed below) and any sub-milestone to the optional milestones. The optional milestones are as follows:

- Optional Milestone J: Vapor Intrusion Sampling
- Optional Milestone K: Supplemental Groundwater Sampling
- Optional Milestone L: Supplemental Injection Well Installation
- Optional Milestone M: Monitoring Well Repairs
- Optional Milestone N: Preparation of Remedial Action Progress Report
- Optional Milestone O: Preparation and Recording of Supplemental Environmental Covenant

## **BASE SCOPE OF WORK MILESTONES**

### **Milestone A: Geophysical Survey**

All bidders are required to provide in Attachment 2 the cost to perform a geophysical survey of the Site and an evaluation of the underground utilities beneath the Site by a Professional Engineer licensed in the Commonwealth. The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

The geophysical survey and underground utility evaluation shall be conducted prior to intrusive characterization activities describe within this SOW.

The purpose of the geophysical survey is to attempt to identify and locate the historic UST excavations, potential unknown USTs, conveyance lines, and other underground utilities and features (specifically water, sewer, electrical, and natural gas utilities) so that intrusive activities included in this SOW can proceed in a safe and effective manner and allow for the investigation of possible contaminant migratory pathways. It is anticipated that at least electromagnetic and ground-penetrating radar technologies would be employed.

The engineering evaluation should include (but not be limited to) the construction and depth of storm sewers, sanitary sewers, water lines, and natural gas lines beneath the Site property. The survey should extend to a distance of 50 feet beyond the property in public rights of way in all directions. The evaluation should include any on-site laterals to these utilities which may have served or currently serve as preferential migration pathways for petroleum impacted water, potential separate phase liquid, and/or vapor. This evaluation should include a review of available municipal and authority plans of the utilities

beneath New Alexandria Road and Roosevelt Way and incorporate the geophysical survey.

**Milestone B: Preparation of Revised Remedial Action Plan**

All bidders are required to provide in Attachment 2 the cost to prepare a Revised Remedial Action Plan (RAP). The Revised RAP shall be prepared in general accordance with 25 Pa Code §245.311 and other applicable statutes, regulations and guidance, and shall be signed and sealed by an appropriately licensed professional registered in the Commonwealth of Pennsylvania (Professional Geologist or Professional Engineer). The Revised RAP shall include a summary of site characterization activities conducted at the Site and propose the NRUA SHS as the remedial goal for soil at the Site and the injection of PetroFix™ into the bedrock aquifer as the selected remedial strategy to achieve the Site-Specific Standard (SSS) for groundwater at the Site. It is anticipated that attainment of the SSS shall be demonstrated through plume stability and exposure pathway identification and elimination.

The elimination of potential future exposure pathways on the Site property shall be documented in an environmental covenant (presumably to restrict the use of on-site groundwater) recorded with the County Recorder of Deeds. For the purposes of this RFB, all bidders shall assume that the potential future exposure pathways on affected off-site properties will be addressed via post-closure periodic assessments performed outside of the fixed-price remediation executed as part of this RFB.

The Revised RAP shall be prepared in draft form for review and comment by the Solicitor and the PAUSTIF. The selected bidder shall complete Milestone B within 60 days of the execution of the Remediation Agreement. The timeframe for the completion of this Milestone shall provide two weeks for the Solicitor's and PAUSTIF's review.

Tables, figures, and other attachments that support the text shall include, but not be limited to, the following:

- Comprehensive historical groundwater elevation data (including SPL elevations and thickness where applicable);
- Comprehensive groundwater and soil analytical data;
- The results of the geophysical survey performed as part of Milestone A;
- Site map(s) showing site boundaries, pertinent site features, existing soil borings and monitoring well locations;
- Site map(s) showing the anticipated injection well locations; and
- A groundwater monitoring plan to demonstrate attainment of the SSS.

The cost for Milestone B will be reimbursed as follows:

- B1 – RRAP Submittal: 75% of proposed Milestone cost
- B2 – RRAP Approval: 25% of proposed Milestone cost

### **Milestone C: Injection Well Installation**

All bidders shall provide in Attachment 2 the cost to install 22 two-inch diameter bedrock injection wells in six-inch diameter air rotary boreholes. Nine injection wells shall be installed in Area 1 (IA1-1 through IA1-9), five injection wells shall be installed in Area 2 (IA2-1 through IA2-5), and eight injection wells shall be installed in Area 3 (IA3-1 through IA3-8). Area 1, Area 2, and Area 3 along with the proposed locations of the injection wells are shown on Figure 10 in Attachment 3a.

The injection wells in Area 1 and Area 2 shall include “shallow” and “deep” injection wells. As shown on Figure 10 in Attachment 3a injection wells IA1-5 through IA1-9 in Area 1 and injection wells IA2-1 and IA2-2 in Area 2 shall be constructed as “shallow” injection wells and injection wells IA1-1 through IA1-4 in Area 1 and IA2-3, IA2-4, and IA2-5 in Area 2 shall be constructed as “deep” injection wells.

The injection wells shall be constructed in general accordance with the “Well Application Guidance for PetroFix™” (included as Attachment 3m) and include provisions for the well head assembly for the injection of PetroFix™ (described in the Application Guidance for PetroFix™). The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling associated with the installation and construction of the injection wells.

The selected bidder shall refer to the results of the geophysical survey and other utility mark out procedures (i.e., engineering evaluation of underground utilities, PA One Call, etc.) prior to drilling the injection wells to avoid subsurface utilities. Soft dig drilling techniques shall be employed as part of the installation of all injections wells in Area 3. If any of the prescribed injection well locations are to be modified significantly or if construction details vary from the assumptions presented below, the selected bidder shall notify the Solicitor and PAUSTIF with a technical justification to do so before proceeding.

For the purpose of this RFB, each bidder shall assume the following:

- Soft digging in Area 3 will extend to a depth of 5 fbg.
- All injection wells shall be completed at the surface with a securable manhole, set in concrete flush with the ground surface. A locking, pressure fit, watertight cap shall be used to prevent the infiltration of surface runoff and rainwater and to restrict unauthorized access.
- The “shallow” injection wells in Area 1 and Area 2 shall be constructed as follows:
  - Total Depth: 15 fbg
  - Screen Interval: 5 fbg to 15 fbg
  - Screen: 30-slot



- Sand Interval: 5 fbg to 15 fbg
  - Sand Pack: Morie #1
  - Tremmied Grout Interval: 2 fbg to 5 fbg
- The “deep” injection wells in Area 1 and Area 2 shall be constructed as follows:
  - Total Depth: 30 fbg
  - Screen Interval: 15 fbg to 30 fbg
  - Screen: 30-slot
  - Sand Interval: 13 fbg to 30 fbg
  - Sand Pack: Morie #1
  - Tremmied Grout interval: 2 fbg to 13 fbg
- The injection wells in Area 3 shall be constructed as follows:
  - Total Depth: 28 fbg
  - Screen Interval: 8 fbg to 28 fbg
  - Screen: 30-slot
  - Sand Interval: 6 fbg to 28 fbg
  - Sand Pack: Morie #1
  - Tremmied Grout Interval: 2 fbg to 6 fbg

A construction log for each injection well shall be prepared by a Professional Geologist using a standard and consistent classification system procedure (Modified Burmister or USCS).

The tops of casings of the groundwater monitoring wells shall be vertically and horizontally surveyed by a licensed surveyor to allow for the calculation of groundwater elevations across the Site.

All bidders shall also provide in Attachment 2 (as part of Optional Milestone L) the per injection well installation costs for injection wells installed as part of this Milestone. If it is reasonable and necessary to drill and construct more or less injection wells, then the appropriate per injection well installation cost will be used to modify the reimbursement for Milestone C.

**Milestones D: PetroFix™ Injection**

All bidders shall provide in Attachment 2 the cost to acquire the PetroFix™ products specified in the PetroFix™ Design and Cost Estimate and prepare and inject the materials into the injection wells and recovery wells in accordance with the PetroFix™ Application Summary Grid Estimate and Well Application Guidance for PetroFix™. The PetroFix™ Design and Cost Estimate, PetroFix™ Application Summary Grid Estimate, and Well Application Guidance for PetroFix™, provided by Regenesys, are included in Attachment 3m.

The PetroFix™ Design and Cost Estimate identifies ten injection wells in Area 1, five injection wells in Area 2, and nine injection wells in the Barrier Area (Area 3). The injection wells are identified below:

- Area 1: IA1-1 through IA1-9 and RW-1
- Area 2: IA2-1 through IA2-5
- Barrier Area: IA3-1 through IA3-8 and RW-2

It should be noted that RW-1 and RW-2 will each need to be retrofitted with a well head assembly for the injection of PetroFix™ (described in the Application Guidance for PetroFix™).

**All bidders shall assume that public water and electricity is not available on the Site property and therefore shall include in Attachment 2 the costs to import the required amount of water and provide the necessary on-site electricity generation.**

The costs included in Attachment 2 shall include, but not be limited to, all PetroFix™ products, the costs necessary to obtain all necessary permits for the subsurface injection of the PetroFix™ materials, as well as all mobilizations, subcontractors, labor, equipment, and waste handling.

#### **Milestones E1 – E8: Quarterly Groundwater Attainment Sampling**

All bidders shall provide in Attachment 2, the cost to perform eight consecutive quarterly post-remediation groundwater attainment sampling events. The quarterly attainment sampling events shall be performed during successive calendar quarters beginning with the calendar quarter following the calendar quarter in which Milestone D was executed. The purpose of post-remediation groundwater attainment sampling events is to allow for the collection of sufficient groundwater chemistry data to demonstrate attainment of the SSS. Each quarterly groundwater attainment sampling event shall be separated by at least six weeks.

Each quarterly groundwater sampling event shall include measuring the depth-to-water (and SPL if applicable) in each of the groundwater monitoring wells (MW-1R, MW-2R, MW-3R, and MW-4 through MW-114) followed by the purging and sampling of each of the groundwater monitoring wells. The groundwater samples shall be collected in laboratory-provided containers and analyzed by EPA Method 8260B for the substances listed in the COC section of this RFB. If a groundwater sample cannot be obtained from one or more groundwater monitoring wells, the reimbursement for Milestones E1 through E8 will be reduced by the unit sampling cost included in Optional Milestone K2.

In the event that attainment of the SSS can be achieved in fewer than eight quarters, the selected bidder shall petition the PADEP to allow for less than eight quarters of groundwater attainment sampling.

The costs included in Attachment 2 shall include, but not be limited to, all mobilizations, subcontractors, labor, equipment, and waste handling.

**Milestones F1 – F7: Preparation of Remedial Action Progress Reports**

All bidders shall provide in Attachment 2, the cost to prepare seven quarterly Remedial Action Progress Reports (RAPRs). Each RAPR shall present the data collected during each of the quarterly post-remediation groundwater sampling events performed as part of Milestone E with the exception of the last post-remediation groundwater sampling event which will be presented in the Remedial Action Completion Report (Milestone G). For instance, Milestone F1 will present the data collected as part of Milestone E1, Milestone F2 will present the data collected as part of Milestone E2, etc. Provided attainment of the SSS can be demonstrated for groundwater, the Remedial Action Completion Report shall be prepared following the completion of the last quarterly groundwater attainment sampling event. Each RAPR shall be prepared in accordance with 25 Pa Code §245.312(c) and signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

**Milestone G: Preparation of Remedial Action Completion Report**

All bidders shall provide in Attachment 2 the cost to prepare a Remedial Action Completion Report (RACR) that requests relief from liability for the substances listed in the COC section of this RFB in soil via the NRUA SHS and in groundwater via the SSS. The RACR shall be prepared in accordance with 25 Pa Code §245.313 and other applicable statutes, regulations and guidance, and shall be signed and sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania.

Text, tables, figures, and other attachments that support the relief from liability shall include, but not be limited to, the following:

- Assuming that vapor intrusion is not a concern, a full evaluation of the vapor intrusion pathway indicating that there are no unacceptable risks in accordance with Section IV (Vapor Intrusion) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101);
- Comprehensive groundwater elevation data in table form;
- Comprehensive groundwater sampling results in table form;
- Comprehensive soil sampling results in table form;
- Comprehensive soil vapor and/or indoor air and/or sub-slab vapor sampling results in table form (if applicable);
- Time vs concentration graphs and statistical analyses for each COC reported above the NRUA SHS MSC in post-remediation groundwater samples;

- Scaled figures showing the location of monitoring wells, injection wells, recovery wells, soil samples, and indoor air and/or soil vapor samples (if applicable);
- Scaled figures for each round of quarterly post-remediation groundwater sampling that shows groundwater elevation data, groundwater elevation contours, and inferred direction(s) of groundwater flow;
- Scaled figures for each analyte detected in post-remediation groundwater samples at concentrations above the NRUA SHS MSCs. Each figure should show analyte concentrations in each well and inferred dissolved-phase analyte plume contours;
- A fate and transport analysis for COCs in groundwater (if appropriate);
- Laboratory reports, chains of custody, and field sampling documentation for all media sampled as part of characterization;
- Construction logs for injection wells;
- Details of the remedial injection of PetroFix™; and
- A demonstration of attainment of the NRUA SHS for soil and the SSS for groundwater, including applicable activity and use limitations for the Site and surrounding properties (if applicable), and Uniform Environmental Covenants Act (UECA) waiver requests (i.e., for Roosevelt Way).

The RACR shall be prepared in draft form for review and comment by the Solicitor and the PAUSTIF. The selected bidder shall complete the RACR within 60 days following the completion of the final quarterly attainment groundwater sampling event. The timeframe for the completion of the RACR shall provide two weeks for the Solicitor's and PAUSTIF's review and the selected bidder shall address all of the comments received from the Solicitor and the PAUSTIF before submission of the RACR to PADEP.

The cost for Milestone G will be reimbursed as follows:

- G1 – RACR Submittal: 75% of proposed Milestone cost
- G2 – RACR Approval: 25% of proposed Milestone cost

#### **Milestones H: Preparation and Recording of Environmental Covenant**

All bidders shall provide in Attachment 2 the cost to prepare an Environmental Covenant for the Site in accordance with UECA. The costs included in Attachment 2 shall include, but not be limited to, the required Environmental Covenant fee and the costs necessary to prepare the draft Environmental Covenant, coordinate the execution of the final Environmental Covenant by the Solicitor and the PADEP, record the Environmental Covenant with the Westmoreland County Recorder of Deeds, and provide a file-stamped copy of the recorded Environmental Covenant to the Solicitor, the PADEP, the PAUSTIF, the municipality, and the county. The timeframe for the completion of this Milestone shall provide two weeks for the PAUSTIF to review the draft Environmental Covenant.

For the purposes of this RFB, each bidder shall assume the following:

- Activity and use limitations on the Site will restrict groundwater from potable and agricultural use and restrict the future use of the property to non-residential.
- Periodic assessments of surrounding properties will be performed to verify exposure assumptions in the RACR.

### **Milestones I: Site Restoration**

All bidders shall provide in Attachment 2 the costs to abandon the groundwater monitoring wells, injection wells, recovery wells, and soil vapor sampling points and remove from the Site all remaining above-ground components of the DPE system.

All bidders shall assume that the groundwater monitoring wells, injection wells, and recovery wells shall be abandoned from the bottom to the top with grout delivered through a tremie pipe and the shallow vapor points shall be abandoned by removing the sampling tubing from the ground. All abandonments shall be conducted in accordance with generally accepted practices as outlined in Appendix A (Groundwater Monitoring Guidance) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101) and include the removal and disposal of concrete aprons and manholes and surface restoration.

### **OPTIONAL MILESTONES**

#### **Optional Milestone J: Vapor Intrusion Sampling**

The purpose of this optional milestone is to allow for the evaluation of vapor intrusion via sub-slab soil gas sampling. The activation of Optional Milestones J1 and J2 will require the prior approval of the Solicitor and PAUSTIF. The costs associated with Optional Milestones J1 and J2 shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

***Optional Milestone J1*** – All bidders shall provide in Attachment 2 the cost to install two sub-slab soil gas sampling points in the Site building and perform one sub-slab soil gas sampling event that includes the two sub-slab soil gas sampling points. The soil gas sampling points shall be installed through the concrete slab of the Site building at a location determined by the selected bidder based on professional judgment and in accordance with Section IV of the Technical Guidance Manual.

All bidders are required to provide in their bid response document a description of how the sub-slab soil gas sampling points would be installed, purged, and sampled. The QA/QC actions associated with the collection of the sub-slab soil gas samples shall also be described (e.g., pre-sampling survey and chemical inventory, leak testing, duplicate samples, ambient air samples, etc.).

The sub-slab soil gas samples shall be analyzed for the substances in the COC Section of this RFB.

**Optional Milestone J2** – All bidders shall provide in Attachment 2 the cost to complete an additional comprehensive sub-slab soil gas sampling event that includes the two sub-slab soil gas sampling points installed as part of Optional Milestone J1. The sub-slab soil gas samples collected as part of Optional Milestone J2 shall be collected and analyzed in accordance with the procedures used to collect the samples in Optional Milestone J1.

### **Optional Milestone K: Supplemental Groundwater Sampling**

The purpose of this optional milestone is to allow for the collection of additional groundwater samples. The activation of Optional Milestones K1 and K2 will require the prior approval of the Solicitor and PAUSTIF.

**Optional Milestone K1** – All bidders shall provide in Attachment 2 the cost to complete one comprehensive groundwater sampling event. The sampling event shall include the gauging, purging, and sampling of groundwater monitoring wells MW-1R, MW-2R, MW-3R, and MW-4 through MW-114. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone K2** – All bidders shall provide in Attachment 2 the cost to purge and collect one groundwater sample for laboratory analysis from one groundwater monitoring well as an add on to another Milestone or Optional Milestone that includes mobilization and should therefore not include mobilization costs. The costs shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and will be used to modify as necessary the reimbursement for other Milestones and Optional Milestones.

### **Optional Milestone L: Supplemental Injection Well Installation**

The purpose of this optional milestone is to allow for the installation, construction, and survey of more or less injection wells. The activation of Optional Milestone L1, L2, L3, L4, L5, or L6 will require the prior approval of the Solicitor and PAUSTIF.

**Optional Milestone L1** – All bidders shall provide in Attachment 2 the cost to install, construct, and survey one “shallow” injection well in accordance with the Area 1 and Area 2 “shallow” injection well specifications described in Milestone C. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone L2** – All bidders shall provide in Attachment 2 the cost to install, construct, and survey one additional “shallow” injection well in accordance with the Area 1 and Area 2 “shallow” injection well specifications described in Milestone C as an add-on to Optional Milestone L1, L3, or L5 (which account for mobilization costs). The costs shall

include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization costs.

**Optional Milestone L3** – All bidders shall provide in Attachment 2 the cost to install, construct, and survey one “deep” injection well in accordance with the Area 1 and Area 2 “deep” injection well specifications described in Milestone C. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone L4** – All bidders shall provide in Attachment 2 the cost to install, construct, and survey one “deep” injection well in accordance with the Area 1 and Area 2 “deep” injection well specifications described in Milestone C as an add-on to Optional Milestone L1, L3, or L5 (which account for mobilization costs). The costs shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization costs.

**Optional Milestone L5** – All bidders shall provide in Attachment 2 the cost to install, construct, and survey one additional injection well in accordance with the Area 3 injection well specifications described in Milestone C. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone L6** – All bidders shall provide in Attachment 2 the cost to install, construct, and survey one additional injection well in accordance with the Area 3 injection well specifications described in Milestone C as an add-on to Optional Milestone L1, L3, or L5 (which account for mobilization costs). The costs shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization costs.

#### **Optional Milestone M: Monitoring Well Repairs**

The purpose of this optional milestone is to allow for minor and major monitoring well surface completion repairs.

All bidders are required to provide in Attachment 2, the cost to repair (Optional Milestone M1) and replace (Optional Milestones M2 and M3) one monitoring well surface completion. The activation of Milestones M1, M2, and M3 will require the prior approval of the Solicitor and PAUSTIF.

**Optional Milestone M1** – All bidders shall provide in Attachment 2 the cost to perform one minor repair to one existing groundwater monitoring well surface completion. The minor repair shall include the costs associated with replacing the manhole lid bolts, manhole lid o-ring, lockable monitoring well “J” plug, and lock. All bidders shall assume that Optional Milestone M1 can be completed as part of another milestone that includes mobilization costs. Costs for Optional Milestone M1 shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization costs.

**Optional Milestone M2** – All bidders shall provide in Attachment 2 the cost to perform one major repair to one existing groundwater monitoring well surface completion. The major repair shall include the costs associated to remove, dispose of, and replace the concrete pad and manhole, and the replacement of the “J” plug and lock. All bidders shall assume that Optional Milestone M2 shall be performed as a stand-alone optional milestone; therefore the costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone M3** – All bidders shall provide in Attachment 2 the cost to perform one major repair to one existing groundwater monitoring well surface completion as an add-on to another milestone or optional milestone that already accounts for mobilization costs. The major repair shall include the costs associated to remove, dispose of, and replace the concrete pad and manhole and the replacement of the “J” plug and lock. Costs for Optional Milestone M3 shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization costs.

**Optional Milestone N: Preparation of Remedial Action Progress Report**

The purpose of this optional milestone is to allow for the preparation and submission of a RAPR to convey to the PADEP data associated with a quarterly groundwater sampling event performed in conjunction with a quarterly groundwater sampling event without an affiliated RAPR. The activation of Optional Milestone N will require the prior approval of the Solicitor and PAUSTIF.

All bidders shall provide in Attachment 2 the cost to prepare and submit to the PADEP a RAPR prepared in accordance with 25 Pa Code §245.312(c).

**Optional Milestone O: Preparation and Recording of Supplemental Environmental Covenant**

The purpose of this optional milestone is to allow for the preparation and recording of an Environmental Covenant for one off-site property in accordance with UECA. The costs included in Attachment 2 shall include, but not be limited to, the required Environmental Covenant fee and the costs necessary to prepare the draft Environmental Covenant, coordinate the execution of the final Environmental Covenant by the property owner and the PADEP, record the Environmental Covenant with the Westmoreland County Recorder of Deeds, and provide a file-stamped copy of the recorded Environmental Covenant to the property owner, the PADEP, the PAUSTIF, the municipality, and the county. The timeframe for the completion of this Milestone shall provide two weeks for the PAUSTIF to review the draft Environmental Covenant.

For the purposes of this RFB, each bidder shall assume the following:



- Activity and use limitations on the off-site property will restrict groundwater from potable and agricultural use and restrict the future use of the property to non-residential.

### **Additional Information**

In order to facilitate PAUSTIF's review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone identified in the executed Remediation Agreement. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. The selected consultant will perform only those tasks/milestones that are necessary to reach the Objective identified in this RFB. Selected consultant will not perform, invoice, or be reimbursed for any unnecessary work completed under a milestone.

Any "new conditions", as defined in Attachment 1, arising during the execution of the SOW for any of the milestones may result in termination of or amendments to the Remediation Agreement. Modifications to the executed Remediation Agreement will require the written approval of the Solicitor and the PAUSTIF. PADEP approval may also be required.

## List of Attachments

1. Remediation Agreement
2. Bid Cost Spreadsheet
3. Site Information/Historic Documents
  - a. Figure 1 – Site Location Map  
Figure 2 – Site Plan Showing Groundwater Monitoring Wells  
Figure 3 – Soil Sampling Location Map  
Figure 4 – Soil Vapor Sampling Location Map  
Figure 5 – Dissolved-Phase Benzene Concentration Contour Map  
Figure 6 – Dissolved-Phase Ethylbenzene Concentration Contour Map  
Figure 7 – Dissolved-Phase MTBE Concentration Contour Map  
Figure 8 – Dissolved-Phase Napthalene Concentration Contour Map  
Figure 9 – Dissolved-Phase 1,2,4-Trimethylbenzene Concentration Contour Map  
Figure 10 – Injection Well Location Map
  - b. November 7, 1996 Underground Storage Tank Closure Report
  - c. May 1997 Site Characterization Report
  - d. October 28, 2009 Site Characterization Report
  - e. September 2013 Site Characterization Report
  - f. March 2014 Remedial Action Plan
  - g. September 2016 Remedial Action Completion Report
  - h. April 2017 Remedial Action Plan Addendum
  - i. Second Quarter 2017 Remedial Action Progress Report
  - j. Second Quarter 2019 Remedial Action Progress Report
  - k. Soil Sampling Summary Table
  - l. Laboratory Report for Fourth Quarter 2019 Groundwater Sampling Event
  - m. PetroFix™ Acquisition and Application Information