

## **Request for Bid**

**Fixed-Price Defined Scope of Work**

**Completion of Site Characterization Activities and  
Preparation of a Site Characterization Report**

### **Solicitor**

**101 E. Hunting Park Ave, LP**

**Former Hunting Park Shell Station  
101 E. Hunting Park Avenue  
Philadelphia, PA 19124-6002**

**PADEP Facility ID #: 51-09761      PAUSTIF Claim #: 2017-0130(W)**

### **Date of Issuance**

**October 2 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 Solicitor is the current owner 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

Activity	Date and Time
Notification of Intent to Attend Site Visit (due to COVID-19 pandemic this is a required activity)	October 19, 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 of Intent to Attend Site Visit)	October 22, 2020
Deadline to Submit Questions	November 5, 2020 by 5 p.m.
Bid Due Date and Time	November 19, 2020 by 3 p.m.

## Contact Information

Technical Contact
<p><b>Mr. Daniel Delp, P.G.</b> <b>Groundwater Sciences Corporation</b> <b>2601 Market Place Street, Suite 310</b> <b>Harrisburg, PA 17110-9340</b> <b>Phone – 717-901-8183</b> <b>Fax – 717-657-1611</b> <b>Email – <a href="mailto:ddelp@groundwatersciences.com">ddelp@groundwatersciences.com</a></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 “**Former Hunting Park Shell Station: 2017-0130(W) – 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 and time 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; 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 "Former Hunting Park Shell Station: 2017-0130(W) – SITE MEETING ATTENDANCE NOTIFICATION"**. The name and contact information of the company participant should be included in the body of the email. 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-Bid-Submission@icf.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-Bid-Submission@icf.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 the following:

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 SOW 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. Bids should include enough original language conveying bidder’s thought such that the understanding of site conditions, closure approach (if applicable), and approach to addressing the scope of work can be evaluated. Since bidders are not prequalified, the bid response must provide the Bid Evaluation Committee and Solicitor enough information to complete a thorough review of the bid and bidder.

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 SOW, 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”.
11. The name and contact information of the person who is to be contacted in the event the bid is selected by the Solicitor and/or a Right to Know request is received by PAUSTIF.

## Bid Review and Evaluation

### 1. Bid Review and Scoring

Bidders' submissions that are administratively qualified (attend the mandatory pre-bid site meeting, submission of the bid by the designated due date and time) will be evaluated.

#### Technical Scoring

Bids are evaluated for technical viability before cost is considered. Bids that have technical scores that fall within 75% of the highest technical score will advance to cost scoring. Bids with technical scores below 75% of the highest technical score are eliminated from further consideration.

Numerical values will be assigned for defined SOW bids for two categories:

- Understanding the problem and demonstrating knowledge of how to perform the work
- Qualifications and Experience

Numerical values will be assigned to three categories in those cases where there is a bid-to-result request:

- Understanding of the problem
- Technical and Regulatory Approach to Remediation
- Qualifications and Experience

#### Cost Scoring

Cost scores are determined by a cost formula. The bid(s) with the lowest total cost receives the maximum cost points available. The remaining bids are scored by applying the following cost formula:  $(1 - ((B - A) / A)) \times C = D$

A = the lowest bid cost

B = the bidder's cost being scored

C = the maximum number of cost points available

D = bidder's cost score (points)

If a bid cost is equal to, or greater than, twice the amount of the lowest bid cost, the formula calculation will result in a negative number and the bid will be assigned zero cost points.

## 2. Evaluation of Bids

A committee comprised of at least two members of the PAUSTIF staff, two members of ICF staff, and the Technical Third Party Reviewer (TPR) who assisted in developing the bid package will score all bids that are administratively qualified based on the above criteria. PAUSTIF recognizes that several bids may be acceptable and receive similar numerical scores. At the conclusion of the scoring process, the claimant will receive those bids whose numerical scores place them in the category of meeting Reasonable and Necessary criteria and acceptable for PAUSTIF funding. The claimant may select any of the consulting firms that submitted a qualified bid package to implement the tasks described in the bid; however, PAUSTIF will only provide funding up to the highest fixed price of those bids determined to be Reasonable and Necessary for PAUSTIF funding.

## **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 Name/Address**

Former Hunting Park Shell Station  
101 E. Hunting Park Avenue  
Philadelphia, Pennsylvania 19124-6002

### **Site Location and Operation information**

The Former Hunting Park Shell Station is located in North Philadelphia at the intersection of Hunting Park Avenue and North Front Street (**Figure 1 in Attachment 3a**). The Site is approximately 0.50 acres and has been used as an active retail filling station since 1965. The Site contains a block building convenience store with slab-on-grade construction. The Facility contains newly permitted underground storage systems installed in 2018 that include 12,000, 10,000 and 8,000 gallon tanks; multiple product dispensers; and an associated canopy. Historic releases of petroleum products have been documented at the Site including a release that is the subject of an environment covenant for petroleum constituents exceeding PADEP Statewide Health Standard (SHS) non-residential Medium Specific Concentrations (nrMSCs) in groundwater beneath the property. The Site is located in a mixed-use, urban environment.

The Site is situated on the northeast corner of Hunting Park Avenue and Front Street and bounded by a storm culvert (Wingohocking Creek), Greenmount Cemetery, and 4216 North Front Street, LLC, and a used car lot to the north; Concilio parking lot to the east; East Hunting Park Avenue to the south, and North Front Street to the west (**Figure 2 in Attachment 3a**).

The elevation at the center of the Site is approximately 100-ft above mean sea level and topography slopes northwest toward Front Street. The former Wingohocking Creek was deepened, enclosed in a 19 ft-high and 22 ft-wide culvert, and buried along the north property line of the Site in 1925 (**Figure 3 in Attachment 3a**). The top of the buried storm water pipe is approximately 16 feet below ground surface (ftbgs) and constructed of reinforced concrete. The backfill material around the storm pipe has been described from soil borings as silt, clay, cinders, cobbles, slag, manufactured gas plant (MGP) tailings, wood, metal, concrete, and other debris. The culvert is shown on Philadelphia Water Department Utility Plats in Exhibit A of the March 2019 Site Characterization Report (SCR – **Attachment 3c**).

Additional Site information is as follows:

- The nearest surface water body, Frankford Creek, is located approximately one mile northeast of the Site and discharges to the Delaware River.
- According to information in the SCR, the nearest supply well is located 750 feet up-gradient (southwest) of the Site.
- The Site and surrounding area are served by public water.
- Groundwater is prohibited for human consumption in the area per the Philadelphia Health Code.
- An Environmental Covenant was recorded for the former owner of the property in 2012 as part of the corrective action associated with a previous petroleum release and prohibits the use of groundwater at the Site for drinking, agricultural, irrigation, or industrial use.

### **Site Environmental and Transaction History**

<b>Date</b>	<b>Event</b>
January 1960	Mobil Gas Station
November 2005	PADEP NOR for groundwater impact from unleaded gasoline
August 2006	Diesel fuel NOR submitted
January 2007	Diesel Fuel Investigation Report submitted to PADEP
September 2007	SCR submitted to PADEP
December 2007	SCR approved with comments
April 2008	SCR Addendum/RAP submitted to PADEP
May 2009	SCR Addendum/RAP disapproved by PADEP
November 2009	Revised SCR/RAP submitted to PADEP
May 2010	Revised SCR/RAP disapproved by PADEP
January 2012	Divestment ESA
February 2012	Purchase by 101 E. Hunting Park Avenue, LP
February 2012	Environmental Covenant
February 2013	SCR/RACR submitted to PADEP
October 2017	NOR submitted for UST release
March 2019	Submitted SCR
June 2019	SCR denied by PADEP

### **Site Geology**

The Site is reportedly underlain by approximately 15 to 35 feet of fill material including silt, clay, cinders, cobbles, slag, MGP tailings, wood, metal, concrete and other debris. Below this fill is weathered schist described on monitoring well and piezometer logs. According to information in the SCR, the bedrock beneath the Site consists of Wissahickon Formation containing schist and gneiss. The thinly bedded, steeply dipping Wissahickon Formation weathers quickly with a saprolite occurring in many areas. A cross-section for the Site is included as Figure 1 (Motiva

Report, Sovereign Consulting, Inc.) in **Attachment 3e**. Well and piezometer logs for the Site are included in the March 2019 SCR (**Attachment 3c**). A summary of the well and piezometer information is included as **Table 1** in **Attachment 3b**.

Based on historic groundwater measurements, the inferred direction of groundwater flow is northeast (**Figure 4** in **Attachment 3a**) with average hydraulic gradient approximately 0.03 feet/foot. Well yields are reportedly between one (1) to two (2) gallons per minute (gpm). The average depth to water at the site is approximately between 17.0 to 18.5 ftbgs. Reported hydraulic conductivity values from slug tests conducted on the Site range between 0.16 feet/day and 6.49 feet/day.

### **Overview of Release Investigations and Interim Remedial Actions**

A summary of characterization information is as follows:

- A total of 12, two-inch groundwater monitoring wells; 15, one-inch piezometers; and four (4) soil borings were installed. Soil samples were also collected during installation of the monitoring wells. Fill material was encountered at all drilling locations during Site characterization activities.
- Slug tests were conducted at monitoring wells SCMW1, SCMW5, SCMW6, and SCMW7.
- Piezometers were installed to delineate the free product plume. The product has pooled up against the buried Wingohocking storm water drain beneath the Site and appears to be contained along the northern property line.
- According to information in the SCR, fingerprint analysis of separate phase liquid (SPL) was completed and suggests the product is a mixture of fresh and very old gasoline. The presence of creosote, coal tar, and other polycyclic aromatic hydrocarbons (PAHs) was also noted indicating a significant contribution to groundwater contamination from other non-gasoline sources such as contaminated fill, MGP tailings, and diesel fuel.
- Four soil vapor monitoring points were installed and sampled; indoor air from the convenience store and background (ambient air) samples were also collected.
- Enhanced fluid recovery (EFR) events have recovered significant volume of SPL. Two recovery sumps were installed and recovery from SCMW8 and SCMW9 also took place. As of July 31, 2020 (See **Attachment 3d**), total fluid recovered is 103,406 gallons (estimated 17,415 gallons of SPL and 85,972 gallons of water).
- A geophysical survey was performed in October 2019 by American Geophysics, Inc. The surveyed area included the Site property, the used car dealership property to the north, a portion of the parking lot to the east, and a grassy area to the northeast of the Site (across North Front Street from the used car dealership). The geophysical report is attached as **Attachment 3f**.
- Daily vapor reconnaissance monitoring was performed two to three times per week with a photoionization detector (PID) at the storm water inlets onsite, on Hunting Park Avenue,

and on Front Street, the manholes and surface water inlets on Hunting Park Avenue and Front Street, SVP1, SVP-2, SVP-3, and SVP-4, and at the on-Site convenience store.

- The SPL plume appears to be contracting.

Facility inventory records indicated a loss of gasoline over several months prior to October 2017. The source of the release was determined to be associated with cracks discovered on the bottom of two separate gasoline underground storage tanks (USTs) (UST1 and UST2). During 2018, five regulated UST systems (three 10,000 gallon unleaded gasoline, one 10,000 gallon kerosene, and one 8,000 gallon diesel) were removed and replaced with three new UST systems containing one 12,000 gallon and one 10,000 gallon unleaded gasoline and one split 8,000 gallon unleaded gasoline-diesel tanks; product lines; and reconditioned multiple product dispensers.

Soil and groundwater impacts from petroleum hydrocarbons are present at the Site (benzene, toluene, ethylbenzene, xylenes, 1,2,4-TMB, and naphthalene). The dissolved-phase plume has been documented off Site and likely extends beyond the downgradient property boundary. A measureable thickness of SPL has been observed in groundwater monitoring wells SCMW1, SCMW4, SCMW8, and SCMW9. Dissolved phase hydrocarbons have been detected in groundwater monitoring wells SCMW1, SCMW2, SCMW3, SCMW4, SCMW5, SCMW6, SCMW7, SCMW8, and SCMW9 during at least one sampling event at concentrations greater than PADEP nrSHS MSCs. Groundwater plumes have not been fully delineated.

The results of characterization activities completed to date indicate impacts to soil above PADEP nrSHS MSCs for benzene, ethylbenzene, toluene, and 1,2,4-TMB, and groundwater impacts above PADEP nrSHS MSCs for benzene, ethylbenzene, toluene, xylene, naphthalene, and 1,2,4-TMB. Site monitoring wells, sumps, piezometers, soil vapor points, and other Site features are shown on **Figure 3** in **Attachment 3a**.

Fifteen (15) piezometers (P1-P15) were installed in addition to twelve (12) groundwater monitoring wells to assess groundwater quality and to delineate SPL. Monitoring well and piezometer construction details are listed in Table 9 of the SCR and associated logs are included in Exhibit A of the March 2019 SCR (**Attachment 3c**). The monitoring wells and piezometers were surveyed by Clancy & Associates for location, grade, and top of inner casing elevations and summarized in Table 9 of the March 2019 SCR (**Attachment 3c**). Results of fingerprint analyses of the SPL are presented in Section 3.4 of the SCR.

Groundwater monitoring wells SCMW1, SCMW8, and SCMW9 have been intermittently used for SPL and groundwater recovery during EFR events using a vacuum truck. In addition, two recovery sumps were installed (Sumps 1 and 2). Construction details for the sumps are shown in Table 9 in the March 2019 SCR (**Attachment 3c**).

Ongoing EFR events appear to have been effective at recovering SPL at the Site. As of July 31, 2020 total fluid recovered is 103,406 gallons (17,415 gallons of product and 85,972 gallons of water). The most recent daily measurement sheets are included in **Attachment 3d**.

Four (4) permanent soil vapor sampling points (SVP1, SVP2, SVP3 and SVP4) (**Figure 3 in Attachment 3a**) were installed in 2018. Reportedly, soil vapor, indoor air from the convenience store, and ambient air background samples were collected during sampling on August 17, 2018. According to information in the SCR, an August 29, 2018 sampling event was necessary due to SVP4 canister malfunction and resampling was required. The vapor samples were analyzed for the PADEP shortlist of petroleum substances for unleaded gasoline. The laboratory results for soil vapor and indoor air are summarized in Table 10 of the March 2019 SCR (**Attachment 3c**). The soil vapor results indicate no compounds with concentrations above the applicable residential or nonresidential screening values for PADEP unleaded gasoline short list of compounds. Analytical results for the in-door sample reported no compounds with concentrations above the non-residential SHS screening values. Additional evaluation of vapor intrusion must be performed.

Daily vapor reconnaissance monitoring was required by the PADEP. Vapor reconnaissance monitoring was performed twice daily, three times per week during 2018 using a calibrated PID. The vapor levels were monitored in storm water inlets and manholes at seven locations, soil vapor points (SVP1 - SVP4), and inside the on-Site convenience store.

### **Soil, Soil Vapor, and Groundwater Conditions**

Benzene, ethylbenzene, toluene, and 1,2,4 TMB were detected at concentrations greater than the PADEP nrSHS MSCs in the following soil samples: SCMW1, SCMW5, SCMW8, SCMW9, SCMW11, and SCMW12. Analytical results for samples collected during the soil investigation are summarized in Table 1, Table 7, and Table 8 of the March 2019 SCR (**Attachment 3c**). Soil contamination has not been fully delineated at the Site.

Daily vapor reconnaissance monitoring is being performed using a PID. As of July 31, 2020 (See **Attachment 3d**), PID readings between 68 and 81 parts per million (ppm) were measured in SVP1 and SVP2. These readings are consistent with past readings measured at these points. PID readings for all other monitoring points were zero ppm. The PID readings at SVP1, SP3, and SP4 have remained stable. The PID readings at SVP2 (on-Site store) have declined since implementing SPL recovery operations. Monthly PID vapor monitoring data is summarized in Table 11 of the March 2019 SCR (**Attachment 3c**) and daily data sheets from July 2020 are contained in **Attachment 3d**.

Soil vapor sampling was also conducted at the Site. The laboratory results from soil vapor sampling are summarized in Table 10 of the March 2019 SCR (**Attachment 3c**). The March



2019 SCR indicates no compounds were reported at concentrations above the residential or nonresidential SHS screening values. But additional vapor intrusion work must be conducted.

The laboratory results from the groundwater sampling events are summarized in Table 14 of the March 2019 SCR (**Attachment 3c**). The parameter list for the August 3, 2018 event included the PADEP shortlist for both leaded and unleaded gasoline. However, the parameter list for the December 28, 2018 event was reduced to the PADEP shortlist for unleaded gasoline only. It is important to note that no groundwater samples were collected from a monitoring well if SPL was present the day of sampling.

The results of the most-recent quarterly groundwater sampling event (August 2019) are presented on Table 2 in **Attachment 3b**. The results of August 2019 groundwater sampling indicate petroleum hydrocarbon compounds reported at concentrations above nrSHS MSCs in groundwater from wells SCMW1, SCMW4, SCMW5, SCMW8 and piezometers P1, P2, P3, P6 and P15. The isoconcentration figures for compounds exceeding PADEP nrSHS MSCs for groundwater are shown on **Figures 5 through 11** in **Attachment 3a**.

### **Regulatory Submissions**

A SCR for the 2017 release was submitted to PADEP on March 5, 2019 (**Attachment 3c**). The SSS for soil and SHS for groundwater were the selected remediation standards selected for the Site. The PADEP disapproved the SCR in a letter dated June 24, 2019 because “the dissolved groundwater contamination has not been delineated vertically and horizontally, per 25 Pa. Code Chapter 245.310(a)(22).”

### **Selected Remediation Standard for Soil and Groundwater**

The selected remediation standard for the Site is the Site Specific Standard for soil and groundwater. The selected standard is subject to change based on the data collected during the performance of the SOW.

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

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. The PADEP had no comment on this RFB.

### **Objective**

This RFB is seeking qualified firms to prepare and submit a fixed price proposal to complete a Defined Scope of Work for the milestones presented below. The objectives of the SOW are to 1) further gauge groundwater, SPL, and vapors at designated monitoring points at the Site; 2)

delineate the extent of dissolved-phase unleaded gasoline constituents in groundwater to the northeast of the site; 3) delineate on-Site soil impacts from the 2017 unleaded gasoline release; 4) remove SPL if conditions warrant, and 6) prepare a SCR that receives approval by the PADEP.

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

PADEP unleaded gasoline short-list substances (benzene, toluene, ethylbenzene, xylenes (total), cumene (isopropylbenzene), MTBE, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene).

### **General SOW Requirements**

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; 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 perform the following:<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

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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.

appropriate to complete the SOW. 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. Containerized soil and groundwater may be temporarily stored on-site in a location agreeable to the Solicitor, but should be removed from the Site in a timely manner. The investigation-derived wastes, including purge water, shall be disposed in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. It is the selected consultant's responsibility to conform to current PADEP Regional Office guidance requirements in the region where the Site is located. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor and the PAUSTIF upon request. Unless otherwise noted in SOW milestones, bidders will be responsible for including costs in their bid response document to cover the disposal of all potential waste related to the milestones included in the SOW. Bidders should estimate the volume of waste using professional opinion, experience and the data provided. **ICF and PAUSTIF will not entertain any assumptions from the selected bidder in the Remediation Agreement with regards to a volume of waste. Invoices submitted by the selected bidder to cover additional waste disposal costs as part of activities included under the fixed-price Remediation Agreement for this site will not be paid.**
- Be responsible for providing the Solicitor and facility operator (and off-site owner/operator, where appropriate) 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.

### **Site-Specific Guidelines**

As part of this RFB, the selected consultant will need to consider the following site-specific guidelines:

- **Documenting Time On-Site:** A Consultant representative will, upon arrival and departure of the facility, sign Solicitor logbook each time the Site is visited.

- **Scheduling:** As part of this RFB, the selected consultant shall provide a detailed schedule to complete the milestones (e.g. within 30 days of the contract being executed) as to when each of the milestones will be completed. This includes the expected date (e.g. within 90 days of the contract being executed) when the draft deliverables will be submitted to the Solicitor and PAUSTIF for review.
- **Field Activities:** All bidders shall assume that access to the off-Site properties referenced in the SOW was secured prior to the preparation of this RFB. In the event that off-Site access has not been secured, or a revised off-site access agreement has to be executed, all bidders shall refer to Optional Milestone J. All on- and off-Site work should be conducted during the normal business days and hours of 8:00 AM to 5:00 PM from Monday through Friday, unless work outside of these normal business days and hours is authorized by the respective property owner.
- **Responsibility:** The selected consultant will be the consultant of record for the Site. They will be required to take ownership of the project and will be responsible for representing the interests of the Solicitor and PAUSTIF with respect to the project. This includes using their professional judgment to ensure reasonable, necessary, and appropriate actions are recommended and undertaken to protect sensitive receptors, adequately characterize the Site, and move the Site towards closure.

The selected consultant shall be responsible for keeping the groundwater monitoring wells in good condition, with each well properly sealed and locked between each monitoring/sampling event. The selected consultant is responsible for repairing any seals or locks that become defective during the completion of activities under the Remediation Agreement.

- **Field Instrumentation:** Each bidder should state in their bid response document the appropriate field instrumentation (e.g., pumps, meters, PIDs, etc.) to be used during the completion of the SOW.
- **Safety Measures:** Each bidder should determine the safety measures necessary to appropriately complete the milestones. Specifically, if a consultant feels that it is appropriate and necessary to complete utility clearance using an air knife, the cost should be included in their fixed-price cost. If a bidder includes costs to conduct specific safety measures or activities, the bidder should specify it in the bid response and discuss why it is appropriate and necessary and indicate which methods will be used and to what extent. As discussed in the RFB, cost is not the only factor when evaluating bid responses and other factors are taken into consideration during the bid evaluation 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: Obtain Off-Site Access
  - Optional Milestone K: Supplemental Soil Sampling
  - Optional Milestone L: Supplemental Groundwater Monitoring Well Installation, Survey, and Development
  - Optional Milestone M: Supplemental Groundwater Sampling
  - Optional Milestone N: Monitoring Well Repairs
  - Optional Milestone O: SPL and Contaminated Groundwater Disposal
  - Optional Milestone P: Vapor Intrusion Evaluation Sampling

## **BASE SCOPE OF WORK MILESTONES**

### **Milestone A: Separate Phase Liquid, Groundwater Elevation, and Air Monitoring Events**

All bidders shall provide in **Attachment 2** the costs to perform three monitoring events as Sub-Milestones A1, A2, and A3. Each of the three sub-milestone events shall include the following:

- The measurement of depth to groundwater and SPL (if present) in each monitoring well (SCMW1 through SCMW12), piezometer (P1 through P15), and sump (Sump1, Sump2);
- The collection of PID measurements for ambient air inside the on-site store;
- The collection of PID measurements for air drawn from SVP1 through SVP4;
- The collection of PID measurements for air inside to-be-determined manholes and storm water inlets; and
- The reporting of collected data to the PADEP.

Prior to initiating Milestone A, the selected bidder shall verify the manhole and storm water inlet air monitoring locations with the PADEP. For the purposes of completing Attachment 2 for this milestone, all bidders shall assume PID measurements will be collected from at least 16 locations (four locations inside the on-Site store, SVP1 through SVP-4, and a total of eight manholes and storm water inlets).

The depth-to-water and depth-to-SPL measurements shall be made using an electronic conductance-type interface probe with a 0.01-ft resolution. Air monitoring shall be performed with a calibrated PID.

The three monitoring events shall be performed in accordance with the following schedule:

- Sub-Milestone A1: To be performed within five business days of executing the Remediation Agreement.
- Sub-Milestone A2: To be performed during the week following the completion of Sub-Milestone A1.
- Sub-Milestone A3: To be performed no sooner than 15 days after the completion of Sub-Milestone A2 and during the calendar month following the calendar month in which Sub-Milestone A2 is completed.

The data collected during each monitoring event shall be submitted within one week of collection to the PADEP Southeast Regional Office, via email (rsepsy@pa.gov), Attention: Ryan Sepsy (Compliance Specialist and Sarah Pantelidou, P.G.). [Note: The format for which historical data has been submitted to the PADEP is included as **Attachment 3d.**]

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

**Milestone B: Professional Land Survey and Engineering Evaluation of Underground Utilities**

All bidders shall provide in **Attachment 2** the cost to conduct a professional land survey and an evaluation of underground utilities. The professional land survey shall be conducted by a Pennsylvania-licensed land surveyor and the evaluation of underground utilities shall be performed by a Professional Engineer licensed in the Commonwealth.

The professional land survey shall include all principal Site features located on the Facility property, the adjacent off-Site parking lot located at the 4216 North Front Street, LLC property, and the adjacent Grace Kids Academy property. The principal Site features shall include (but are not limited to) property boundaries, buildings, curbs, manholes (including groundwater monitoring well covers), vapor monitoring points, surface water inlets, utility poles, and public utility valves, and rights of way.

The survey shall be referenced to the Pennsylvania State Plane coordinate system with reference to the North American Datum of 1983 (NAD83) and feature elevations shall be surveyed to a vertical accuracy of 0.01 feet using the North American Vertical Datum (NAVD 88).

The engineering evaluation shall include (but not be limited to) the construction and depth of storm sewers, sanitary sewers, water lines, natural gas lines, and other subsurface utilities beneath the Facility property, the adjacent off-Site parking lot located at the 4216 North Front Street, LLC property, and the adjacent Grace Kids Academy property. The survey should extend to a distance of 50 feet beyond the three properties in all directions. The evaluation should include any on-Site laterals to utilities which may have served or currently serve as preferential migration pathways for petroleum impacted water, SPL, and/or vapor. The

evaluation should also include a review of available municipal and local authority plans of the utilities beneath North Front Street and East Hunting Park Avenue.

The results of the survey and engineering evaluation of underground utilities shall be available in tabulated format and incorporated into the interpretations of maps, cross sections, etc. to be included in the SCR (Milestone I).

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

**Milestone C: Separate Phase Liquid, Groundwater Elevation, and Air Monitoring Event and Comprehensive Groundwater Sampling Event**

All bidders shall provide in **Attachment 2**, the cost to perform one monitoring event in accordance with the monitoring events performed in Milestone A and a comprehensive groundwater sampling event. The results of the monitoring event performed in accordance with Milestone A shall be reported within one week of the event to the PADEP in accordance with reporting process described in Milestone A.

Milestone C shall be completed in the calendar month following the calendar month in which Sub-Milestone A3 is completed.

The comprehensive groundwater sampling event shall include the purging and subsequent collection of groundwater samples from all monitoring wells that do not contain measurable SPL. For the purposes of completing Attachment 2 for this milestone, all bidders shall assume that groundwater samples will be collected from the eight groundwater monitoring wells that have not historically contained SPL (SCMW2, SCMW3, SCMW5, SCMW6, SCMW7, SCMW10, SCMW11, and SCMW12). In the event that more or less than eight groundwater monitoring wells are sampled as part of this milestone (monitoring wells are inaccessible or one or more of the four monitoring wells that have historically contained SPL (SCMW1, SCMW4, SCMW8, and SCMW9) does not contain SPL), reimbursement for fewer or additional wells sampled will be based on the per well sampling cost provided by all bidders as Optional Milestone M3.

Groundwater elevation/SPL gauging, purging, sampling, and analysis shall be conducted in accordance with generally accepted practices as outlined in the PADEP's Groundwater Monitoring Guidance of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101). The samples collected from the groundwater monitoring wells shall be collected in laboratory-provided containers and analyzed by USEPA Method 8260B for the substances listed in the COC section of this RFB.

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

#### **Milestone D: Soil Boring Installation and Sampling**

All bidders shall provide in **Attachment 2** the cost to advance ten soil borings (SB-5 through SB-14) and collect one soil sample from each soil boring to characterize the lateral and vertical extent of COCs in soil. The approximate locations of the proposed soil borings are shown on **Figure 12** in **Attachment 3a**.

Prior to executing Milestone D, the selected bidder shall determine if an acceptable access agreement is in place to allow for prescribed intrusive activities. In the event an acceptable access agreement is not in place, the selected bidder shall discuss obtaining the necessary access agreement(s) with the Solicitor and PAUSTIF and consider executing Optional Milestone J prior to proceeding.

The selected bidder shall refer to the results of the professional land survey and utility evaluation (Milestone B) and results of the utility mark outs (i.e. PA One Call, etc.) and exercise professional judgment prior to advancing the prescribed soil borings to avoid subsurface utilities. In the event that any of the prescribed soil bring locations are to be modified significantly, the selected bidder shall notify the Solicitor and PAUSTIF with justification to do so before proceeding.

The selected bidder shall physically clear each of the well locations from the ground surface to a minimum depth of 5 ftbgs at a diameter that equals or exceeds the diameter of the drilling equipment. The selected bidder shall determine whether or not it is appropriate to increase the clearing depth based on all available information (e.g., site conditions, utility information, etc.). Bidders shall include a description in their bid response document as to how the hole-clearing will be performed.

Each soil boring shall be advanced to the depth that corresponds with the deepest prescribed sampling interval (described below) within that boring. Soil samples shall be screened at 0.5ft intervals with a calibrated PID (using headspace measurement techniques). Continuous geological logs shall be prepared by a Professional Geologist licensed in the Commonwealth for each boring using a standard and consistent classification system procedure (Modified Burmister or USCS).

For the purpose of this milestone, the selected bidder shall assume that one soil sample shall be collected from each of the soil borings from the 0.5-ft interval with the highest PID measurement within the interval described below (or from mid-way between the two-ft interval if no elevated PID reading is observed). In the event that a PID reading (greater than two (2) times) is measured at a depth different from the one described below, Optional Milestone K3 shall be used. For soil borings SB-5 through SB-14, the following samples shall be collected:

- Soil Boring SB-5 – One soil sample shall be collected from between 15 and 17 ftbgs.
- Soil Boring SB-6 – One soil sample shall be collected from between 15 and 17 ftbgs.



- Soil Boring SB-7 – One soil sample shall be collected from between 16 and 18 ftbgs.
- Soil Boring SB-8 – One soil sample shall be collected from between 16 and 18 ftbgs.
- Soil Boring SB-9 – One soil sample shall be collected from between 16 and 18 ftbgs.
- Soil Boring SB-10 – One soil sample shall be collected from between 16 and 18 ftbgs.
- Soil Boring SB-11 – One soil sample shall be collected from between 16 and 18 ftbgs.
- Soil Boring SB-12 – One soil sample shall be collected from between 16 and 18 ftbgs.
- Soil Boring SB-13 – One soil sample shall be collected from between 17 and 19 ftbgs.
- Soil Boring SB-14 – One soil sample shall be collected from between 17 and 19 ftbgs.

All soil samples shall be collected in laboratory-provided containers and analyzed by USEPA Method 8260B for the substances listed in the COC section of this RFB. Upon the completion of each soil boring, the boring shall be filled to the surface and the disturbed repair shall match the existing surface material.

The selected bidder shall complete the milestone within 60 days of the execution of the Agreement.

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

**Milestone E: Monitoring Well Installation, Development, Survey, and Sampling**

All bidders shall provide in **Attachment 2** the cost to drill, construct, develop, survey, and sample three groundwater monitoring wells (MW-13, MW-14, and MW-15) to further characterize groundwater at the Site. The approximate locations of the proposed monitoring wells are shown on **Figure 12** in **Attachment 3a**.

Prior to executing Milestone E, the selected bidder shall determine if an acceptable access agreement is in place to allow for prescribed intrusive activities. In the event an acceptable access agreement is not in place, the selected bidder shall discuss obtaining the necessary access agreement(s) with the Solicitor and PAUSTIF and consider executing Optional Milestone J prior to proceeding.

The selected bidder shall refer to the results of the professional land survey and utility evaluation (Milestone B) and results of the utility mark outs (i.e. PA One Call, etc.) and exercise professional judgment prior to advancing the prescribed groundwater monitoring wells to avoid subsurface utilities. In the event that any of the prescribed locations are to be modified significantly, the selected bidder shall notify the Solicitor and PAUSTIF with justification to do so before proceeding. The selected bidder shall physically clear each of the well locations from the ground surface to a minimum depth of 5 ftbgs at a diameter that equals or exceeds the diameter of the drilling equipment. The selected bidder shall determine whether or not it is appropriate to increase the clearing depth based on all available information (e.g., site conditions, utility information, etc.). Bidders shall include a description in their bid response document as to how the hole-clearing will be performed.

Each well shall be installed using hollow stem auger drilling techniques to a total depth of 25 ftbgs. Two-inch diameter PVC wells shall be constructed inside the 4 ¼" diameter augers such that 15 feet of screen is set at the lower portion of the borehole and 10 feet of riser extends from the screened interval to the surface. A sand pack shall extend from no more than one (1) foot below the bottom of the screen to approximately two (2) feet above the screen. The groundwater monitoring 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.

It should be noted that the well screen depths described, above, are approximate and presumed to have sufficient groundwater yield to be completed as monitoring wells. The actual depth and length of the screened intervals shall be determined by a Pennsylvania-licensed P.G. based on the site-specific subsurface conditions encountered during the drilling of the wells. Deviations from the depths specified above should be defensible based on sound professional judgment.

Soil cuttings from each well shall be inspected for physical characteristics (lithology, color, moisture content, etc.), signs of apparent petroleum impact (staining, odor, sheen, etc.), and screened using a PID and head space techniques at two-foot intervals. The subsurface conditions and inspection results shall be documented on the log prepared for each well.

The tops of casings of the groundwater monitoring wells shall be vertically and horizontally surveyed by a professional land surveyor into the groundwater monitoring well network established by Milestone B to allow for the calculation of groundwater elevations across the Site.

Groundwater monitoring wells MW-13, MW-14, and MW-15 shall be constructed and developed 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).

Well logs shall be prepared by a Professional Geologist using the standard and consistent classification system procedure used in Milestone D.

As part of Milestone E, the selected bidder shall purge and collect groundwater samples from groundwater monitoring wells MW-13, MW-14, and MW-15. The purging and groundwater sampling performed as part of Milestone E shall occur no sooner than two weeks following the development of the groundwater monitoring wells. Prior to the purging and collection of groundwater samples from MW-13, MW-14, and MW-15, the selected bidder shall measure depths-to-water (and SPL thickness, if applicable) in all groundwater monitoring wells and piezometers. The groundwater samples shall be collected in laboratory-provided containers

and analyzed by USEPA Method 8260B for the substances listed in the COC section of this RFB.

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

### **Milestones F: SPL Removal Event**

All bidders shall provide in **Attachment 2** the cost to perform one SPL removal event from SCMW8, SCMW9, Sump1 and Sump 2 using a vacuum truck with a minimum capacity of 2,000 gallons. All bidders shall assume for the purposes of this milestone that a vacuum shall be applied for three consecutive hours on each well (SCMW8 and SCMW9) to remove SPL and contaminated groundwater. SPL should also be removed from the sumps such that a total of 8 hours is spent on-site.

The cost included as part of Milestone F should not include the disposal costs for SPL and contaminated groundwater removed as part of Milestone F. The cost per gallon for the disposal of the SPL and contaminated groundwater shall be provided by all bidders in Attachment 2 as part of Optional Milestone O.

Milestone F shall be performed within 30 days of the completion of Milestone E.

The vacuum extraction will be performed in accordance with the following steps:

- Record the depth-to-SPL, SPL thickness, and depth-to-water using an electronic conductance-type interface probe with a 0.01 foot resolution.
- Connect a drop tube, outfitted with Fernco®-type fitting sized to seal the drop tube to the well casing and modified so that its terminal end is cut to a 45-degree angle, to the vacuum truck. If a vacuum is to be applied to more than one monitoring well, a manifold should be used to allow for two drop tubes to be connected to the vacuum truck. A drop tube should be dedicated to each monitoring well.
- Following the startup of the vacuum, the drop tube(s) will be slowly lowered into the well to the depth of the SPL. Once SPL removal starts, the drop tube should be slowly lowered into the well a distance no greater than 4 feet below the initial static water level.
- Once the drop tube is at the target depth, the drop tube should be secured at that depth by securing and sealing the drop tube to the well casing with the Fernco®-type fitting for the duration of that well(s) vacuum time. By sealing the drop tube to the well casing a vacuum will be created within the well above the slightly depressed water table in the well.
- Once the prescribed amount of time for the vacuum expires, the drop tube will be slowly withdrawn from the well(s).
- Turn off the vacuum, making sure that the contents of the drop tube and vacuum hose are free of liquids.
- Record the post-vacuum depth-to-water and depth-to-SPL (if present).

- Document the approximate volume of SPL and groundwater removed during the vacuum extraction.
- Install a petroleum absorbent sock into monitoring wells SCMW8 and SCMW9 with string until it floats on the surface of the groundwater. After allowing enough slack in the string to account for fluctuations in the groundwater table, tie the string to the monitoring well cap.

**Milestone G: Separate Phase Liquid, Groundwater Elevation, and Air Monitoring Event and Second Comprehensive Groundwater Sampling Event**

All bidders shall provide in **Attachment 2**, the cost to perform one monitoring event in accordance with the monitoring event performed in Milestone A and a comprehensive groundwater sampling event. The results of the monitoring event performed in accordance with Milestone A shall be reported to the PADEP within one week of the event in accordance with the reporting process described in Milestone A.

Milestone G shall be completed no sooner than 30 days following the completion of Milestone F and in the calendar quarter following the calendar quarter in which Milestone C is completed such that two consecutive comprehensive quarterly sampling events are completed.

The comprehensive groundwater sampling event shall include the removal of the petroleum absorbent sock(s) set as part of Milestone F, the determination of SPL recovery by standard industry means, and purging and subsequent collection of groundwater samples from all monitoring wells that do not contain measurable SPL. For the purposes of completing Attachment 2 for this milestone, all bidders shall assume that groundwater samples will be collected from the eight groundwater monitoring wells that have not historically contained SPL and the three monitoring wells installed as part of Milestone E (SCMW2, SCMW3, SCMW5, SCMW6, SCMW7, SCMW10, SCMW11, SCMW12, MW-13, MW-14, and MW-15). In the event that more or less than eleven groundwater monitoring wells are sampled as part of this milestone (monitoring wells are inaccessible or one or more of the four monitoring wells that have historically contained SPL (SCMW1, SCMW4, SCMW8, and SCMW9) does not contain SPL), reimbursement for sampling of fewer or additional wells will be based on the per well sampling cost provided by all bidders as Optional Milestone M3.

Groundwater elevation/SPL gauging, purging, sampling, and analysis shall be conducted in accordance with generally accepted practices as outlined in the PADEP's Groundwater Monitoring Guidance of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101). The samples collected from the groundwater monitoring wells shall be collected in laboratory-provided containers and analyzed by USEPA Method 8260B for the substances listed in the COC section of this RFB.

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

### **Milestone H: Vapor Intrusion Evaluation**

All bidders shall provide in **Attachment 2**, the cost to evaluate the potential for vapor intrusion from COCs into current and future inhabited buildings on the Site property, the adjacent off-site parking lot located at the 4216 North Front Street, LLC property, and the adjacent Grace Kids Academy property. The evaluation shall be performed in accordance with Section IV (Vapor Intrusion) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101).

Milestone H shall be performed following the receipt of data collected as part of Milestones A through G. The vapor intrusion evaluation shall consider (but not be limited to) the following information gathered for PAUSTIF Claim 20170130:

- The previous vapor intrusion evaluation;
- All soil and groundwater chemistry data;
- All soil vapor and indoor air sampling data;
- All SPL data; and
- The results from Milestones A through G.

The results of the vapor intrusion evaluation and, if deemed necessary, recommendations for additional vapor intrusion investigation work shall be documented in a memorandum presented to the Solicitor and PAUSTIF. The memorandum shall include (but not be limited to) text, tables, and figures supporting the results of the investigation and the recommendations.

Based on the results of the vapor intrusion evaluation, the selected bidder shall consider soliciting approval from the Solicitor and PAUSTIF to proceed with Optional Milestone P (Vapor Intrusion Evaluation Sampling).

### **Milestone I: Preparation and PADEP Approval of Site Characterization Report**

All bidders shall provide in **Attachment 2**, the cost to prepare a stand-alone Site Characterization Report (SCR). Upon completion of Milestones A through H (and any optional milestones approved by the Solicitor and PAUSTIF), the selected bidder shall prepare the SCR in accordance with 25 Pa Code §245.310 and §245.314. The SCR must be a stand-alone document that includes a summary of previous investigations and a detailed site background. The files used in the preparation of this RFB will be made available to the successful bidder.

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

- An evaluation of vapor intrusion performed in accordance with the TGM;
- A updated receptor survey that includes, but is not limited to:

1. A review of the PA Groundwater Information System (PAGWIS) records available from the PA Topographic and Geologic Survey website. This task shall include plotting all recorded wells within a ½-mile radius of the Site on a scaled map and including a copy of the database records for the search distance in an appendix to the SCR; and
2. A review of the Pennsylvania Natural Diversity Inventory (PNDI) to evaluate for the presence of special concern species and resources.
  - Comprehensive groundwater elevation and SPL thickness measurements in table form;
  - Comprehensive groundwater sampling results in table form;
  - Comprehensive soil sampling results in table form;
  - Comprehensive sub-slab and/or indoor air sampling results in table form;
  - Scaled figures showing the location of monitoring wells, soil samples, and indoor air and/or vapor samples;
  - Scaled figures for each round of groundwater elevation data collection showing groundwater elevations, groundwater elevation contours, and inferred direction(s) of groundwater flow;
  - Scaled isoconcentration maps for each COC found to be above the applicable MSC for each round of groundwater sampling. Each figure should show COC concentrations in each well and isoconcentration contours;
  - Laboratory reports, chains of custody, and field sampling documentation for all media sampled as part of characterization;
  - Logs for all soil borings and monitoring wells, including well construction logs;
  - Slug test data (performed by others) and continuous groundwater elevation monitoring data (including graphs, calculations, etc.); and
  - An updated exposure pathway evaluation.

Prior to submission of the SCR to the PADEP, a draft version of the SCR shall be provided in both electronic and hard copy format for review and comment by the Solicitor, ICF, and the TPR. Three weeks shall be included in the schedule for this review following receipt of the draft SCR by the Solicitor, ICF and the TPR. All comments on the draft report from the Solicitor, ICF and the TPR shall be satisfactorily addressed prior to submission of the finalized SCR to the PADEP.

The cost for Milestone I will be reimbursed as follows:

- I1 – SCR submittal: 75% of Milestone I.
- I2 – SCR PADEP Approval: 25% of Milestone I.

## **OPTIONAL MILESTONES**

### **Milestone J: Obtain Off-Site Access**

All bidders shall provide in **Attachment 2** the costs to obtain an off-site access agreement for one off-site property. All bidders shall include in **Attachment 2** the cost to contact the owner of one off-site property verbally and in writing once to obtain an executed off-site access agreement. If an access agreement cannot be retained the selected consultant shall prepare a written request for assistance from the PADEP to facilitate off-site access and follow up with the PADEP and the property owner to coordinate the execution of access agreements. For the purposes of completing Attachment 2, all bidders shall assume PADEP assistance will be necessary.

### **Optional Milestone K: Supplemental Soil and SPL Investigation**

The purpose of this milestone is to allow for the collection of additional soil and SPL data. The activation of Optional Milestones K1, K2, K3, and K4 will require the prior approval of the Solicitor and PAUSTIF.

For the purposes of this RFB, all bidders shall assume that the supplemental soil samples collected as part of this optional milestone shall be collected in the same manner as described in Milestone D. All soil 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. Soil samples shall be screened at two-foot intervals with a PID (using headspace measurements) and continuous geological logs shall be prepared by a Professional Geologist for each boring using the same consistent classification system procedure described in Milestone D. In the event that SPL is encountered in a supplemental soil boring, the selected bidder shall install a piezometer in the supplemental soil boring to allow for the gauging of SPL.

**Optional Milestone K1** – All bidders shall provide in **Attachment 2** the cost to complete one soil boring to a total depth of 20 ftbgs with the collection and analysis of one soil sample. The costs shall include, but not be limited to, mobilization, labor, equipment, subcontractors, waste, etc.

**Optional Milestone K2** – All bidders shall provide in **Attachment 2** the cost to advance an additional soil boring to a total depth of 20 ftbgs with the collection and analysis of one soil sample as an add-on to Optional Milestone K1 (which accounts for mobilization costs). The costs shall include all subcontractors, labor, equipment, waste, etc.

**Optional Milestone K3** – All bidders shall provide in **Attachment 2** the cost for the collection and analysis of one additional soil sample from a soil boring accounted for in Milestone D and in Optional Milestones K1 and K2 as a cost adder to Optional Milestone K1, K2, and Milestone D.

**Optional Milestone K4** – All bidders shall provide in **Attachment 2** the cost to construct and survey one piezometer within a soil boring created as part of Optional Milestones K1 and K2.

The piezometer shall be constructed of 15 feet of one-inch diameter prepacked PVC screen material, set at the bottom of the 20 foot deep boring, connected to one-inch diameter PVC riser that extends to the ground surface. The piezometer 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.

**Optional Milestone L: Supplemental Groundwater Monitoring Well Installation, Survey, and Development**

The purpose of this milestone is to allow for the installation, survey, and development of additional groundwater monitoring wells. The activation of this Optional Milestones L1 and L2 will require the prior approval of the Solicitor and PAUSTIF.

All bidders shall assume that all supplemental groundwater monitoring wells will be installed, constructed, and developed in accordance with the methodology described in Milestone E. The activation of Optional Milestones L1 and L2 will require prior approval from the Solicitor and the PAUSTIF.

***Optional Milestone L1*** – All bidders shall provide in **Attachment 2** the cost to install, develop, and survey one monitoring well in accordance with Milestone E. The cost 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, develop, and survey one additional monitoring well in accordance with Milestone E as an add-on to Optional Milestone L1 (which accounts for mobilization costs). The cost shall include all subcontractors, labor, equipment, and waste handling.

**Optional Milestone M: Supplemental Groundwater Sampling**

The purpose of this optional milestone is to allow for the collection and analysis of additional groundwater samples. The activation of Optional 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 complete one comprehensive groundwater sampling event. The sampling event shall include the gauging, purging, and sampling of the eleven groundwater monitoring wells identified in Milestone G. The cost shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

***Optional Milestone M2*** – 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 a stand-alone event. The cost 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 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 cost shall include, but not be limited to, labor, equipment, subcontractors, and waste handling.

**Optional Milestone N: 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 N1) and replace (Optional Milestones N2 and N3) one monitoring well surface completion. The activation of Milestones N1, N2, and N3 will require the prior approval of the Solicitor and PAUSTIF.

**Optional Milestone N1** – 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 cost 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 N1 can be completed as part of another milestone that includes mobilization costs. Cost for Optional Milestone N1 shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization costs.

**Optional Milestone N2** – 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 cost 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 N2 shall be performed as a stand-alone optional milestone; therefore the cost shall include, but not be limited to, mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone N3** – 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 cost. The major repair shall include the cost associated to remove, dispose of, and replace the concrete pad and manhole and the replacement of the “J” plug and lock. Cost for Optional Milestone N3 shall include, but not be limited to, labor, equipment, subcontractors, and waste handling and exclude mobilization cost.

**Optional Milestone O: SPL and Contaminated Groundwater Disposal**

All bidders shall provide in **Attachment 2** the per gallon disposal cost for the SPL and contaminated groundwater in the vacuum truck that will be disposed of as part of Milestone F. The per gallon disposal cost will be used as a cost adder to Milestone F, based on the volume

of SPL and contaminated groundwater disposed of following the event. For the purposes of this bid, assume 10 gallons of SPL and 1,000 gallons of water will be produced by the event.

**Optional Milestone P: Vapor Intrusion Evaluation Sampling**

The purpose of this optional milestone is to allow for the collection of sub-slab soil gas samples (Optional Milestones P1 and P2) and Indoor Air Samples (Optional Milestones P3 and P4) to evaluate vapor intrusion. All vapor intrusion sampling activities associated with Optional Milestone P shall be performed in accordance with Section IV (Vapor Intrusion) of the PADEP Land Recycling Program Technical Guidance Manual dated January 19, 2019 (Document 261-0300-101).

The activation of Optional Milestones P1 through P4 will require the prior approval of the Solicitor and PAUSTIF. All samples collected as part of Optional Milestones P1 through P4 shall be analyzed for the substances listed in the COC section of this RFB.

**Optional Milestone P1** – All bidders shall provide in **Attachment 2** the cost to install two sub-slab soil gas sampling points (either through a concrete building slab or through an intact paved area large enough to be representative of a future inhabited building) and perform one sub-slab soil gas sampling event.

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 and the QA/QC actions associated with the collection of the sub-slab soil gas samples (e.g., pre-sampling survey, chemical inventory, leak testing, duplicate samples, ambient air samples, etc.).

The cost associated with Optional Milestones P1 shall include (but not be limited to) mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone P2** – 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 P1. The sub-slab soil gas samples (and QA/QC samples, if applicable) collected as part of Optional Milestone P2 shall be collected and analyzed in accordance with the procedures used to collect the samples in Optional Milestone P1.

The cost associated with Optional Milestones P2 shall include (but not be limited to) mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone P3** – All bidders shall provide in **Attachment 2** the cost to collect two indoor air samples. All bidders shall assume that the indoor air samples will be collected in laboratory provided six-liter passivated stainless steel canisters over an 8-hour period. All bidders are required to provide in their bid response document a description of how the indoor

air samples would be collected and the QA/QC actions associated with the collection of the indoor air samples (e.g., pre-sampling survey and chemical inventory, leak testing, duplicate samples, ambient air samples, etc.).

The cost associated with Optional Milestones P3 shall include (but not be limited to) mobilization, labor, equipment, subcontractors, and waste handling.

**Optional Milestone P4** – All bidders shall provide in **Attachment 2** the cost to collect an additional indoor air sample from the Site as an add-on to Optional Milestone P3 (which already accounts for mobilization costs).

The cost associated with Optional Milestone P4 shall include, but not be limited to, labor, equipment, subcontractors, waste, etc. and will be used in the event that more or less indoor air samples are collected under Optional Milestones P1, P2, and P3.

#### **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 Area Map
  - Figure 3 Site Map
  - Figure 4 Groundwater Elevation Contour Map October 25, 2019
  - Figure 5 Benzene Isoconcentration Map August 22, 2019
  - Figure 6 Toluene Isoconcentration Map August 21-22, 2019
  - Figure 7 Ethylbenzene Isoconcentration Map August 21-22, 2019
  - Figure 8 Total Xylenes Isoconcentration Map August 21-22, 2019
  - Figure 9 124-TMB Isoconcentration Map August 21-22, 2019
  - Figure 10 MTBE Isoconcentration Map August 21-22, 2019
  - Figure 11 Naphthalene Isoconcentration Map August 21-22, 2019
  - Figure 12 Proposed Soil Boring and Monitoring Well Map
  - b. Table 1 Physical Well Data
  - Table 2 Groundwater Chemistry Data
  - c. SCR dated March 2019
  - d. Site Reconnaissance Monitoring (June 29-July 31, 2020)
  - e. Motiva Enterprises, LLC Report dated April 29, 2008
  - f. American Geophysics, Inc. Report (October 2019)