

## Formal Task Assignment Document

### 2019 – 2021 SNOHOMISH COUNTY ON-CALL TASK ASSIGNMENT

Name of Project: Environmental Baseline Assessment Services  
Project Number: Airport  
Discipline: Engineering Services  
Task No.: TA #5 Completion Date: 12/31/2021

The COUNTY desires to authorize services pursuant to the AGREEMENT entered into with **Landau Associates, Inc.**, and executed on December 24, 2018, as amended by Supplement No. 1 on May 22, 2019, and identified as Agreement No. **OCC19/1-7.8(AP)**, On-Call Consultant Services for **Environmental Site Assessment**.

All provisions in the AGREEMENT remain in effect except as expressly modified by this TASK ASSIGNMENT, and are incorporated herein by reference.

### ATTACHED TO THIS TASK ASSIGNMENT

- Scope of Work
- Cost Estimate with Total Hours to Perform Work
- Items unique to the project not included in the AGREEMENT and which are to be reimbursed at cost with no markup.

The **Total Amount Authorized** under this TASK ASSIGNMENT, inclusive of all fees and other costs is **\$59,794.00**. **No other payment shall be allowed unless a TASK ASSIGNMENT Supplement for changed Scope of Work has been signed and authorized before work is performed.**

All work under this TASK ASSIGNMENT shall be performed pursuant to the terms, conditions, specifications, and limitations contained in the AGREEMENT.

If you concur with this TASK ASSIGNMENT and agree to the items as stated above, please sign and date in the appropriate spaces below and return to the COUNTY for final action.

\_\_\_\_\_  
*Consultant Signature*

\_\_\_\_\_  
*Approving Authority*

April 5, 2021

Paine Field/Snohomish County Airport  
3220 100<sup>th</sup> Street SW, Suite A  
Everett, WA 98204

Attn: Andrew Rardin, CM

Transmitted via email to: [andrew.rardin@co.snohomish.wa.us](mailto:andrew.rardin@co.snohomish.wa.us)

**Re: Proposed Scope of Services and Recommended Budget  
Environmental Baseline Assessment Services  
Paine Field/Snohomish County Airport  
Everett, Washington**

Dear Mr. Rardin:

Landau Associates, Inc. (LAI) is pleased to provide you with this proposed scope of services and recommended budget to support Paine Field/Snohomish County Airport (Airport) in conducting environmental baseline assessments of two Airport properties being considered for potential future development. At least one of the properties is being considered as a potential location for a new fuel farm. If authorized, the proposed services will be provided under LAI's 2019–2021 On-Call Engineering Services, Environmental Site Assessment and Geotechnical contract with Snohomish County (County).

## Background

The two properties are within the site boundaries of Paine Field. Prior to leasing the properties to potential tenants, the Airport wishes to investigate soil and groundwater conditions at the properties for the purpose of establishing baseline conditions. Per the terms and conditions of the lease agreement, the tenant will be required to return the property to the original condition (i.e., the baseline conditions). Therefore, documentation of baseline conditions is an important element of the future lease agreements.

## Proposed Scope of Services

The scope of services identified in this proposal letter is divided into the following four primary tasks:

- Task 1: Work Plans and Planning
- Task 2: Work Plan Implementation
- Task 3: Data Management and Reporting
- Task 4: Project Management.

Each of these tasks is described in greater detail below.

## **Task 1: Work Plans and Planning**

### **Work Plan Preparation**

The proposed scope for this task includes preparation of two work plans, one for each potential development site. Each work plan will describe the sampling locations, methods, and analytical testing planned for Task 2. Sampling activities are anticipated to include sampling of soil and groundwater from borings advanced using direct-push and hollow-stem auger drilling methods. Sampling parameters will be based on the planned use of the site (e.g., petroleum for a tank farm). A quality assurance project plan (QAPP) and health and safety plan (HASP) will be included in each work plan. The QAPP will identify the data objectives, along with a description of how the data will be validated and reported. Each HASP will provide LAI field staff with site-specific information regarding potential hazards associated with conducting the soil and groundwater assessment, how to mitigate the hazards, and will outline emergency procedures.

The work plans will be prepared following submittal of a lessee-generated site map showing proposed site improvements so that sampling locations can be selected based on long-term accessibility following site development. A site reconnaissance and survey will be conducted to help identify sampling locations per site development plans. The survey will be conducted by LAI field staff using a hand-held Global Positioning System device, and is expected to take one 8-hour day to complete. This task includes preparation of a County review draft, lessee review draft, and final versions of each work plan. The draft documents will be provided, as appropriate, in Microsoft Word and Adobe Acrobat (PDF) formats; the final documents will be provided as PDFs only.

### **Preliminary Site Assessment**

LAI will conduct a review of known soil and groundwater environmental data from the immediate vicinity of the potential development sites to identify additional potential contaminants of concern, if any, to be included in the investigation parameter list. This review will also look at historical operations in the immediate vicinity of the two sites to identify potential sources of contamination, if any, and to again refine the investigation parameter list if appropriate. LAI will use the Airport's GIS-based library of reference documents to conduct this assessment, and the results will be included in the work plans and draft and final reports.

## **Task 2: Work Plan Implementation**

The following activities will be conducted by LAI to implement the work plans:

- Prior to commencing drilling activities, LAI will mark each drilling location with white paint and/or flagging, and request a public utility locate. A private, conductible utility locate will also be conducted on the first day of drilling activities to identify any conductible utilities within 20 feet of the drilling locations. LAI will coordinate directly with the private and public utility locate companies.
- Drilling and sampling is expected to take up to 4 days for both sites, and LAI anticipates that one field staff person will be needed for most field activities, but will plan to provide one

additional staff member on the first day to complete the private utility locating task described above.

- **For the potential fuel farm site**, drilling and sampling of up to eight borings using a combination auger-probe rig. One soil sample will be collected from each borehole at the depth of the water table or where field screening indicates the highest level of contamination. Up to four of the borings will be drilled to a 20-foot depth to allow collection of a perched groundwater sample (if groundwater is present). The remaining borings will be drilled to approximately 15 feet or the depth of the water table, whichever is less, and sampled for soil as described above.
- **For the second potential development site**, drilling and sampling of four borings using a combination auger-probe rig. One soil sample will be collected from each borehole at the depth of the water table or where field screening indicates the highest level of contamination. Up to two of the borings will be drilled to a 20-foot depth to allow collection of a perched groundwater sample (if groundwater is present). The remaining borings will be drilled to approximately 15 feet or the depth of the water table, whichever is less, and sampled for soil as described above.
- **For both potential development sites**, soil and groundwater samples will be analyzed for gasoline-, diesel- and oil-range total petroleum hydrocarbons (TPH-G, TPH-D, and TPH-O, respectively), and benzene, toluene, ethylbenzene, and xylenes (BTEX). Additional analyses may be conducted on selected soil and groundwater samples, depending on the results of the preliminary site assessment conducted under Task 1. This scope and budget includes an estimate of laboratory costs for TPH-G, TPH-D, TPH-O, and BTEX analyses only. Additional analyses for volatile and semivolatile organic compounds and/or metals would be done on an as-needed basis and discussed with the County prior to requesting analyses from the laboratory.
- Soil cuttings and mixed groundwater and decontamination water will be segregated and stored in 55-gallon steel drums and moved to a secure storage location at the Airport for later disposal. LAI will coordinate with the Airport to identify the drum storage location and will assist the County with waste characterization and disposal. This proposed budget assumes that one soil and one mixed water sample will be collected from each site and will be submitted to the laboratory for metals analysis to support the waste characterization efforts.

This scope and budget assume that LAI will be able to conduct the field activities described above without obtaining additional badges for field personnel. LAI will plan to provide Paine Field-badged and trained field personnel to conduct the field activities and will notify the Airport if additional badged personnel will be required to comply with Paine Field escort procedures.

### **Task 3: Data Management and Reporting**

LAI will prepare two separate reports documenting the preliminary site assessments and the results of the baseline assessments for each potential development site. The assessment data will be summarized in tabular format and presented on figures showing the boring locations and corresponding analytical results compared to applicable Model Toxics Control Act-based screening levels. A data validation memorandum summarizing steps taken to ensure laboratory data quality will be included, along with the tabulated investigation results. This task includes preparation of a County

review draft, lessee review draft, and final versions of each report. The draft reports will be provided, as appropriate, in Microsoft Word and Adobe Acrobat (PDF) formats; the final documents will be provided as PDFs only.

**Task 4: Project Management**

This task includes typical project management and coordination activities such as contracting with LAI’s subcontractors and subconsultants, invoicing, budget tracking, internal coordination, coordination with subconsultants and with the Airport.

**Recommended Budget and Authorization**

LAI’s recommended budget for completion of the above-described scope of services is \$59,794 as detailed in Table 1 (attached) and summarized below.

| Task                                  | Estimated Subcontractor & Vendor Costs | Recommended Budget |
|---------------------------------------|--|--------------------|
| Task 1: Work Plans and Planning       |  | \$12,343           |
| Task 2: Work Plan Implementation      | \$17,155                               | \$32,540           |
| Task 3: Data Management and Reporting |  | \$9,849            |
| Task 4: Project Management            |  | \$5,062            |
| <b>Total</b>                          | <b>\$17,155</b>                        | <b>\$59,794</b>    |

The above-described services will be provided on a time-and-expenses basis in accordance with the terms and conditions of LAI’s 2019–2021 On-Call Engineering Services, Environmental Site Assessment and Geotechnical contract with the County. LAI is prepared to start immediately upon your review of this proposal and receipt of written authorization to proceed. To authorize our services, please provide LAI with the contract-required authorization.

**Project Team**

The project team will be led by Jerry Ninteman, PE, as project manager; Jennifer Wynkoop as quality reviewer and senior technical advisor, and Stephanie Renando as task and field manager. Other LAI personnel, primarily from the Edmonds office, will provide field and office support, as needs require.

\* \* \* \* \*

Thank you for the opportunity to provide you with this proposal. If you have any questions or comments regarding any part of this proposal, please do not hesitate to contact the undersigned.

LANDAU ASSOCIATES, INC.



Stephanie A. Renando  
Project Scientist



Jerry R. Ninteman, PE  
Principal

SAR/JRN/ccy  
2021-9248

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Attachment: Table 1: Fee Determination Summary Sheet

**Paine Field Fuel Farm Assessment**
**Task 1**
**Project Name**
**Task Number**
**Week Ending**

| Field   | Rate (\$) |      |       | Enter How Many |      |       | Item Code | Charges |
|---|-----------|------|-------|----------------|------|-------|-----------|---------|
|   | Day       | Week | Month | Day            | Week | Month |           |         |
| <b>Daily Field Equipment Charges</b>          | 20        |      |       | 1              |      |       |           | \$20.00 |
| Air Velocity Meter                            | 50        |      |       |                |      |       | 5247      | \$0.00  |
| Anderson Sampler                              | 70        |      |       |                |      |       | 5278      | \$0.00  |
| Flow Restrictor                               | 15        |      |       |                |      |       | 5224      | \$0.00  |
| Magnehelic Gage Set                           | 30        |      |       |                |      |       | 5250      | \$0.00  |
| Air Meter - GasCheck G2 - Helium Gas          | 80        |      |       |                |      |       | 5316      | \$0.00  |
| Sub-Slab Sampling Vapor Pin Kit and Shroud    | 50        |      |       |                |      |       | 5005      | \$0.00  |
| Air Compressor                                | 40        |      |       |                |      |       | 5202      | \$0.00  |
| Bailer -Stainless Steel/PVC                   | 10        |      |       |                |      |       | 5206      | \$0.00  |
| Flow Cell - Low Flow Groundwater              | 5         | 15   | 45    |                |      |       | 5239      | \$0.00  |
| Groundwater - Dataloggers - (Solinst)         | 30        |      |       |                |      |       | 5226      | \$0.00  |
| Meter - DO (dissolved oxygen)                 | 30        |      |       |                |      |       | 5242      | \$0.00  |
| Meter - ORP (Cole Parmer) & Turbid. (HACH)    | 30        |      |       |                |      |       | 5259      | \$0.00  |
| Meter - Cole Parmer (pH/cond/temp)            | 30        |      |       |                |      |       | 5245      | \$0.00  |
| Meter - YSI                                   | 75        | 225  | 675   |                |      |       | 5256      | \$0.00  |
| Oil-Water Interface Indicator                 | 50        |      |       | 1              |      |       | 5252      | \$50.00 |
| Poly-Tank or Drum (30 gal.)                   | 10        |      |       |                |      |       | 5304      | \$0.00  |
| Meter - Turbidity (MicroTip or HACH)          | 30        | 75   | 225   |                |      |       | 5215      | \$0.00  |
| Pump - Portable Bladder (QED)                 | 40        | 120  | 360   |                |      |       | 5260      | \$0.00  |
| Pump Controller - Bladder (QED) ONLY          | 75        |      |       |                |      |       | 5261      | \$0.00  |
| Pump - Honda 1.5"                             | 35        |      |       |                |      |       | 5265      | \$0.00  |
| Pump - Honda 3"                               | 70        |      |       |                |      |       | 5004      | \$0.00  |
| Pump - Peristaltic                            | 35        | 105  | 315   |                |      |       | 5264      | \$0.00  |
| Pump - Purge 12 Volt                          | 15        | 45   | 135   |                |      |       | 5271      | \$0.00  |
| Surge Blocks                                  | 3         | 10   | 30    |                |      |       | 5236      | \$0.00  |
| Water Level Indicator                         | 30        | 90   | 270   |                |      |       | 5225      | \$0.00  |
| Injection Kit                                 | 225       |      |       |                |      |       | 5200      | \$0.00  |
| Bladder Tank                                  | 225       |      |       |                |      |       | 5201      | \$0.00  |
| Meter -HAZ-DUST 1 Particulate Monitor         | 75        |      |       |                |      |       | 5244      | \$0.00  |
| Meter Multi-Gas                               | 85        | 255  | 765   |                |      |       | 5240      | \$0.00  |
| Meter-PIDs                                    | 65        |      |       |                |      |       | 5248      | \$0.00  |
| Meter-Noise Level                             | 30        |      |       |                |      |       | 5203      | \$0.00  |
| Pump - Draeger or MSA Hand Pump               | 10        |      |       |                |      |       | 5263      | \$0.00  |
| Respirator                                    | 5         |      |       |                |      |       | 5210      | \$0.00  |
| Traffic Cones (per set of 10)                 | 5         | 15   | 45    |                |      |       | 5216      | \$0.00  |
| No Parking Signs (each)                       | 5         |      |       |                |      |       | 5309      | \$0.00  |
| Weather Station                               | 50        |      |       |                |      |       | 5144      | \$0.00  |
| Beach Seine                                   | 75        |      |       |                |      |       | 5305      | \$0.00  |
| Benthic Sieving Equipment                     | 45        |      |       |                |      |       | 5314      | \$0.00  |
| Ekman Grab                                    | 45        |      |       |                |      |       | 5282      | \$0.00  |
| Fathometer                                    | 20        |      |       |                |      |       | 5258      | \$0.00  |
| Sediment - Piston Corer                       | 80        |      |       |                |      |       | 5306      | \$0.00  |
| Surber Benthic Sampler                        | 50        |      |       |                |      |       | 5279      | \$0.00  |
| Surface Water Sampler Pole                    | 10        |      |       |                |      |       | 5300      | \$0.00  |
| Wetland Field Kit                             | 30        |      |       |                |      |       | 5307      | \$0.00  |
| Density Equipment, Sand Cone                  | 20        |      |       |                |      |       | 5209      | \$0.00  |
| Density Equipment, Nuclear Densometer         | 50        |      |       |                |      |       | 5208      | \$0.00  |
| Ensys Field Test Kit -PCB/TPH                 | 100       |      |       |                |      |       | 5238      | \$0.00  |
| Peat Probe                                    | 5         |      |       |                |      |       | 5235      | \$0.00  |
| Scale or Soil - Field Gram and Pound          | 10        |      |       |                |      |       | 5231      | \$0.00  |
| Soil Hand-Auger Equipment                     | 25        |      |       |                |      |       | 5288      | \$0.00  |
| Soil Split-Barrel Sampler Kit (Dames & Moore) | 25        |      |       |                |      |       | 5285      | \$0.00  |
| Vane Shear Equipment                          | 40        |      |       |                |      |       | 5296      | \$0.00  |
| Water Infiltration Testing Equipment          | 20        |      |       |                |      |       | 5308      | \$0.00  |
| Verizon - Broadband Computer Internet Card    | 8         |      |       |                |      |       | 5143      | \$0.00  |
| Camera, Digital                               | 10        | 30   | 90    |                |      |       | 5302      | \$0.00  |
| Canopy - 10' x 10' Pop-Up                     | 25        | 75   | 225   |                |      |       | 5212      | \$0.00  |
| Computer, Portable                            | 35        |      |       |                |      |       | 5507      | \$0.00  |
| Autolevel with Tripod and Rod                 | 35        |      |       |                |      |       | 5204      | \$0.00  |

|   |             |                       |                  |                |              |      |                 |
|---|-------------|-----------------------|------------------|----------------|--------------|------|-----------------|
| Generator - Honda EZ3500 or EU2000i       | 60          |                       |                  |                |              | 5214 | \$0.00          |
| GPS - Trimble ProXRS/GeoXT/GeoXH          | 110         | 330                   | 990              | 2              |              | 5237 | \$220.00        |
| Hand Level                                | 5           |                       |                  |                |              | 5205 | \$0.00          |
| Shop Vacuum                               | 30          |                       |                  |                |              | 5142 | \$0.00          |
| Weed Whacker/Brush Cutter                 | 30          |                       |                  |                |              | 5310 | \$0.00          |
| Magnetic Metal Detector                   | 35          | 105                   | 315              |                |              | 5318 | \$0.00          |
| Equipment Subtotal                        |             |                       |                  |                |              |      | \$290.00        |
| <b>DISPOSABLES</b>                        | <b>Rate</b> | <b>Enter How Many</b> | <b>Item Code</b> | <b>Charges</b> | <b>Notes</b> |      |                 |
| Absorbent Pads (18" by 18")               | 0.75 each   |                       | 5297             | \$0.00         |              |      |                 |
| Gloves, Nitrile                           | 0.20 each   | 6.00                  | 5299             | \$1.20         |              |      |                 |
| Gloves, Atlas & Scorpio                   | 6.50 pair   |                       | 5299             | \$0.00         |              |      |                 |
| Gloves, Solvex - Elbow                    | 10.00 pair  |                       | 5299             | \$0.00         |              |      |                 |
| Gloves, SolVex - Standard                 | 3.50 pair   |                       | 5299             | \$0.00         |              |      |                 |
| Protective Suit, Saranex                  | 19.00 each  |                       | 5299             | \$0.00         |              |      |                 |
| Protective Suit, Tyvek                    | 9.00 each   |                       | 5299             | \$0.00         |              |      |                 |
| Protective Boot Cover, Tyvek              | 1.00 pair   |                       | 5299             | \$0.00         |              |      |                 |
| Protective Boot Cover, PVC                | 6.00 pair   |                       | 5299             | \$0.00         |              |      |                 |
| Respirator Cartridges                     | 30.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Bailer - Rope                             | 0.10 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Bladder QED Disposable                    | 10.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Brass Locks                               | 12.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Buckets                                   | 5.00 each   |                       | 5297             | \$0.00         |              |      |                 |
| Disposable Bailer - Regular               | 10.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Easy Draw Syringe                         | 2.25 each   |                       | 5297             | \$0.00         |              |      |                 |
| Encore Sampler                            | 9.50 each   |                       | 5297             | \$0.00         |              |      |                 |
| Free Product Sampler                      | 3.00 each   |                       | 5297             | \$0.00         |              |      |                 |
| Locking Well Seal (2-inch)                | 13.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Groundwater Filter (45 micron)            | 17.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Peristaltic - Fittings                    | 2.30 each   |                       | 5297             | \$0.00         |              |      |                 |
| Peristaltic - Master Flex Tubing          | 5.00 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Poly Tubing 5/8 inch                      | 0.45 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Poly Tubing 1/2 inch                      | 0.35 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Poly Tubing 3/8 inch                      | 0.30 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Poly Tubing 1/4 inch                      | 0.25 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Teflon Tubing 1/4"                        | 2.00 foot   |                       | 5297             | \$0.00         |              |      |                 |
| Qwater Well Developer                     | 32.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Shelby Tube Soil Seals with Caps          | 15.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Spray Marking Paint                       | 6.00 each   |                       | 5297             | \$0.00         |              |      |                 |
| Soil Sample Chip Trays                    | 4.00 each   |                       | 5297             | \$0.00         |              |      |                 |
| Survey Flagging                           | 3.00 each   |                       | 5297             | \$0.00         |              |      |                 |
| Survey Stakes                             | 0.70 each   |                       | 5297             | \$0.00         |              |      |                 |
| Tedlar Bags 1 Liter                       | 16.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Helium Gas (vapor pin and shroud testing) | 15.00 test  |                       | 5297             | \$0.00         |              |      |                 |
| Shroud Fittings, implant, tubing, etc.    | 30.00 test  |                       | 5297             | \$0.00         |              |      |                 |
| Vapor Pin Sleeve and Cap                  | 2.00 each   |                       | 5297             | \$0.00         |              |      |                 |
| Wattera Foot Valve                        | 25.00 each  |                       | 5297             | \$0.00         |              |      |                 |
| Wetland Stake                             | 0.20 each   |                       | 5297             | \$0.00         |              |      |                 |
| Yeast Extract                             | 8.00 pound  |                       | 5297             | \$0.00         |              |      |                 |
| Disposables Subtotal                      |             |                       |                  |                |              |      | \$ 1            |
| <b>Vehicle Use</b>                        | <b>Rate</b> | <b>Enter How Many</b> | <b>Item Code</b> | <b>Charges</b> | <b>Notes</b> |      |                 |
| Vehicle Use                               | 50.00 day   | 1                     |                  | \$ 50          |              |      |                 |
| Mileage                                   | 0.560 mile  | 25                    |                  | \$ 14          |              |      |                 |
| Vehicle Subtotal                          |             |                       |                  |                |              |      | \$ 64           |
| <b>Total:</b>                             |             |                       |                  |                |              |      | <b>\$355.20</b> |

**\*Note:**

\* Daily units to be charged in 1/2 day increments. Daily rates will be charged unless specified weekly or monthly. The highlighted equipment and rates are not included on the County-approved equipment list.



**Paine Field Fuel Farm Assessment**
**Task 2**
**Project Name**
**Task Number**
**Week Ending**

| Field   | Rate (\$) |      |       | Enter How Many |      |       | Item Code | Charges  |
|---|-----------|------|-------|----------------|------|-------|-----------|----------|
|   | Day       | Week | Month | Day            | Week | Month |           |          |
| <b>Daily Field Equipment Charges</b>          | 20        |      |       | 5              |      |       |           | \$100.00 |
| Air Velocity Meter                            | 50        |      |       |                |      |       | 5247      | \$0.00   |
| Anderson Sampler                              | 70        |      |       |                |      |       | 5278      | \$0.00   |
| Flow Restrictor                               | 15        |      |       |                |      |       | 5224      | \$0.00   |
| Magnehelic Gage Set                           | 30        |      |       |                |      |       | 5250      | \$0.00   |
| Air Meter - GasCheck G2 - Helium Gas          | 80        |      |       |                |      |       | 5316      | \$0.00   |
| Sub-Slab Sampling Vapor Pin Kit and Shroud    | 50        |      |       |                |      |       | 5005      | \$0.00   |
| Air Compressor                                | 40        |      |       |                |      |       | 5202      | \$0.00   |
| Bailer -Stainless Steel/PVC                   | 10        |      |       |                |      |       | 5206      | \$0.00   |
| Flow Cell - Low Flow Groundwater              | 5         | 15   | 45    | 4              |      |       | 5239      | \$20.00  |
| Groundwater - Dataloggers - (Solinst)         | 30        |      |       |                |      |       | 5226      | \$0.00   |
| Meter - DO (dissolved oxygen)                 | 30        |      |       |                |      |       | 5242      | \$0.00   |
| Meter - ORP (Cole Parmer) & Turbid. (HACH)    | 30        |      |       |                |      |       | 5259      | \$0.00   |
| Meter - Cole Parmer (pH/cond/temp)            | 30        |      |       |                |      |       | 5245      | \$0.00   |
| Meter - YSI                                   | 75        | 225  | 675   | 4              |      |       | 5256      | \$300.00 |
| Oil-Water Interface Indicator                 | 50        |      |       |                |      |       | 5252      | \$0.00   |
| Poly-Tank or Drum (30 gal.)                   | 10        |      |       |                |      |       | 5304      | \$0.00   |
| Meter - Turbidity (MicroTip or HACH)          | 30        | 75   | 225   |                |      |       | 5215      | \$0.00   |
| Pump - Portable Bladder (QED)                 | 40        | 120  | 360   |                |      |       | 5260      | \$0.00   |
| Pump Controller - Bladder (QED) ONLY          | 75        |      |       |                |      |       | 5261      | \$0.00   |
| Pump - Honda 1.5"                             | 35        |      |       |                |      |       | 5265      | \$0.00   |
| Pump - Honda 3"                               | 70        |      |       |                |      |       | 5004      | \$0.00   |
| Pump - Peristaltic                            | 35        | 105  | 315   | 4              |      |       | 5264      | \$140.00 |
| Pump - Purge 12 Volt                          | 15        | 45   | 135   |                |      |       | 5271      | \$0.00   |
| Surge Blocks                                  | 3         | 10   | 30    |                |      |       | 5236      | \$0.00   |
| Water Level Indicator                         | 30        | 90   | 270   | 4              |      |       | 5225      | \$120.00 |
| Injection Kit                                 | 225       |      |       |                |      |       | 5200      | \$0.00   |
| Bladder Tank                                  | 225       |      |       |                |      |       | 5201      | \$0.00   |
| Meter -HAZ-DUST 1 Particulate Monitor         | 75        |      |       |                |      |       | 5244      | \$0.00   |
| Meter Multi-Gas                               | 85        | 255  | 765   |                |      |       | 5240      | \$0.00   |
| Meter-PIDs                                    | 65        |      |       | 4              |      |       | 5248      | \$260.00 |
| Meter-Noise Level                             | 30        |      |       |                |      |       | 5203      | \$0.00   |
| Pump - Draeger or MSA Hand Pump               | 10        |      |       |                |      |       | 5263      | \$0.00   |
| Respirator                                    | 5         |      |       |                |      |       | 5210      | \$0.00   |
| Traffic Cones (per set of 10)                 | 5         | 15   | 45    | 4              |      |       | 5216      | \$20.00  |
| No Parking Signs (each)                       | 5         |      |       |                |      |       | 5309      | \$0.00   |
| Weather Station                               | 50        |      |       |                |      |       | 5144      | \$0.00   |
| Beach Seine                                   | 75        |      |       |                |      |       | 5305      | \$0.00   |
| Benthic Sieving Equipment                     | 45        |      |       |                |      |       | 5314      | \$0.00   |
| Ekman Grab                                    | 45        |      |       |                |      |       | 5282      | \$0.00   |
| Fathometer                                    | 20        |      |       |                |      |       | 5258      | \$0.00   |
| Sediment - Piston Corer                       | 80        |      |       |                |      |       | 5306      | \$0.00   |
| Surber Benthic Sampler                        | 50        |      |       |                |      |       | 5279      | \$0.00   |
| Surface Water Sampler Pole                    | 10        |      |       |                |      |       | 5300      | \$0.00   |
| Wetland Field Kit                             | 30        |      |       |                |      |       | 5307      | \$0.00   |
| Density Equipment, Sand Cone                  | 20        |      |       |                |      |       | 5209      | \$0.00   |
| Density Equipment, Nuclear Densometer         | 50        |      |       |                |      |       | 5208      | \$0.00   |
| Ensys Field Test Kit -PCB/TPH                 | 100       |      |       |                |      |       | 5238      | \$0.00   |
| Peat Probe                                    | 5         |      |       |                |      |       | 5235      | \$0.00   |
| Scale or Soil - Field Gram and Pound          | 10        |      |       |                |      |       | 5231      | \$0.00   |
| Soil Hand-Auger Equipment                     | 25        |      |       |                |      |       | 5288      | \$0.00   |
| Soil Split-Barrel Sampler Kit (Dames & Moore) | 25        |      |       |                |      |       | 5285      | \$0.00   |
| Vane Shear Equipment                          | 40        |      |       |                |      |       | 5296      | \$0.00   |
| Water Infiltration Testing Equipment          | 20        |      |       |                |      |       | 5308      | \$0.00   |
| Verizon - Broadband Computer Internet Card    | 8         |      |       |                |      |       | 5143      | \$0.00   |
| Camera, Digital                               | 10        | 30   | 90    |                |      |       | 5302      | \$0.00   |
| Canopy - 10' x 10' Pop-Up                     | 25        | 75   | 225   |                |      |       | 5212      | \$0.00   |
| Computer, Portable                            | 35        |      |       |                |      |       | 5507      | \$0.00   |

|   |             |       |                       |                  |                |                 |            |
|---|-------------|-------|-----------------------|------------------|----------------|-----------------|------------|
| Autolevel with Tripod and Rod             | 35          |       |                       | 1                |                | 5204            | \$35.00    |
| Generator - Honda EZ3500 or EU2000i       | 60          |       |                       |                  |                | 5214            | \$0.00     |
| GPS - Trimble ProXRS/GeoXT/GeoXH          | 110         | 330   | 990                   | 1                |                | 5237            | \$110.00   |
| Hand Level                                | 5           |       |                       | 1                |                | 5205            | \$5.00     |
| Shop Vacuum                               | 30          |       |                       |                  |                | 5142            | \$0.00     |
| Weed Whacker/Brush Cutter                 | 30          |       |                       |                  |                | 5310            | \$0.00     |
| Magnetic Metal Detector                   | 35          | 105   | 315                   |                  |                | 5318            | \$0.00     |
| Equipment Subtotal                        |             |       |                       |                  |                |                 | \$1,110.00 |
| <b>DISPOSABLES</b>                        |             |       |                       |                  |                |                 |            |
|   | <b>Rate</b> |       | <b>Enter How Many</b> | <b>Item Code</b> | <b>Charges</b> | <b>Notes</b>    |            |
| Absorbent Pads (18" by 18")               | 0.75        | each  |                       | 5297             | \$0.00         |                 |            |
| Gloves, Nitrile                           | 0.20        | each  | 50.00                 | 5299             | \$10.00        |                 |            |
| Gloves, Atlas & Scorpio                   | 6.50        | pair  |                       | 5299             | \$0.00         |                 |            |
| Gloves, Solvex - Elbow                    | 10.00       | pair  |                       | 5299             | \$0.00         |                 |            |
| Gloves, SolVex - Standard                 | 3.50        | pair  |                       | 5299             | \$0.00         |                 |            |
| Protective Suit, Saranex                  | 19.00       | each  |                       | 5299             | \$0.00         |                 |            |
| Protective Suit, Tyvek                    | 9.00        | each  |                       | 5299             | \$0.00         |                 |            |
| Protective Boot Cover, Tyvek              | 1.00        | pair  |                       | 5299             | \$0.00         |                 |            |
| Protective Boot Cover, PVC                | 6.00        | pair  |                       | 5299             | \$0.00         |                 |            |
| Respirator Cartridges                     | 30.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Bailer - Rope                             | 0.10        | foot  |                       | 5297             | \$0.00         |                 |            |
| Bladder QED Disposable                    | 10.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Brass Locks                               | 12.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Buckets                                   | 5.00        | each  | 1.00                  | 5297             | \$5.00         |                 |            |
| Disposable Bailer - Regular               | 10.00       | each  | 1.00                  | 5297             | \$10.00        |                 |            |
| Easy Draw Syringe                         | 2.25        | each  |                       | 5297             | \$0.00         |                 |            |
| Encore Sampler                            | 9.50        | each  |                       | 5297             | \$0.00         |                 |            |
| Free Product Sampler                      | 3.00        | each  |                       | 5297             | \$0.00         |                 |            |
| Locking Well Seal (2-inch)                | 13.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Groundwater Filter (45 micron)            | 17.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Peristaltic - Fittings                    | 2.30        | each  | 2.00                  | 5297             | \$4.60         |                 |            |
| Peristaltic - Master Flex Tubing          | 5.00        | foot  | 5.00                  | 5297             | \$25.00        |                 |            |
| Poly Tubing 5/8 inch                      | 0.45        | foot  |                       | 5297             | \$0.00         |                 |            |
| Poly Tubing 1/2 inch                      | 0.35        | foot  |                       | 5297             | \$0.00         |                 |            |
| Poly Tubing 3/8 inch                      | 0.30        | foot  |                       | 5297             | \$0.00         |                 |            |
| Poly Tubing 1/4 inch                      | 0.25        | foot  | 100.00                | 5297             | \$25.00        |                 |            |
| Teflon Tubing 1/4"                        | 2.00        | foot  |                       | 5297             | \$0.00         |                 |            |
| Qwater Well Developer                     | 32.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Shelby Tube Soil Seals with Caps          | 15.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Spray Marking Paint                       | 6.00        | each  | 1.00                  | 5297             | \$6.00         |                 |            |
| Soil Sample Chip Trays                    | 4.00        | each  | 1.00                  | 5297             | \$4.00         |                 |            |
| Survey Flagging                           | 3.00        | each  | 1.00                  | 5297             | \$3.00         |                 |            |
| Survey Stakes                             | 0.70        | each  | 16.00                 | 5297             | \$11.20        |                 |            |
| Tedlar Bags 1 Liter                       | 16.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Helium Gas (vapor pin and shroud testing) | 15.00       | test  |                       | 5297             | \$0.00         |                 |            |
| Shroud Fittings, implant, tubing, etc.    | 30.00       | test  |                       | 5297             | \$0.00         |                 |            |
| Vapor Pin Sleeve and Cap                  | 2.00        | each  |                       | 5297             | \$0.00         |                 |            |
| Wattera Foot Valve                        | 25.00       | each  |                       | 5297             | \$0.00         |                 |            |
| Wetland Stake                             | 0.20        | each  |                       | 5297             | \$0.00         |                 |            |
| Yeast Extract                             | 8.00        | pound |                       | 5297             | \$0.00         |                 |            |
| Disposables Subtotal                      |             |       |                       |                  | \$             | 104             |            |
| <b>Vehicle Use</b>                        |             |       |                       |                  |                |                 |            |
|   | <b>Rate</b> |       | <b>Enter How Many</b> | <b>Item Code</b> | <b>Charges</b> | <b>Notes</b>    |            |
| Vehicle Use                               | 50.00       | day   | 6                     |                  | \$             | 300             |            |
| Mileage                                   | 0.560       | mile  | 150                   |                  | \$             | 84              |            |
| Vehicle Subtotal                          |             |       |                       |                  | \$             | 384             |            |
| <b>Total:</b>                             |             |       |                       |                  | <b>\$</b>      | <b>1,597.80</b> |            |

**\*Note:**

\* Daily units to be charged in 1/2 day increments. Daily rates will be charged unless specified weekly or monthly.

**Table 1**  
**Fee Determination Summary Sheet**  
**Environmental Baseline Assessment Services**  
**Paine Field – Everett, Washington**

**Snohomish County On Call**  
**Agreement No. OCC19/1-7.8(AP)**

**Paine Field Fuel Farm Baseline Assessment Services**

**Task 1: Work Plans and Planning**

| Classification (a)  | Hours       | x | Rate (b)    | =  | Cost               |
|---------------------|-------------|---|-------------|----|--------------------|
| Principal           | 10          |   | \$ 237.81 ✓ | \$ | 2,378.10 ✓         |
| Senior Associate    | 1.5         |   | \$ 203.16 ✓ | \$ | 304.74 ✓           |
| Senior Project      | 16          |   | \$ 139.34 ✓ | \$ | 2,229.44 ✓         |
| Project             | 42          |   | \$ 127.47 ✓ | \$ | 5,353.74 ✓         |
| GIS Analyst         | 6           |   | \$ 125.47 ✓ | \$ | 752.82 ✓           |
| CAD/GIS Technician  | 3           |   | \$ 104.76 ✓ | \$ | 314.28 ✓           |
| Project Coordinator | 5           |   | \$ 113.62 ✓ | \$ | 568.10 ✓           |
| Support Staff       | 1           |   | \$ 86.57 ✓  | \$ | 86.57 ✓            |
| <b>TOTAL LABOR</b>  | <b>84.5</b> |   |             | \$ | <b>11,987.79 ✓</b> |

| <b>SUBCONTRACTORS (c):</b> | <u>Unit</u> | <u>Rate =</u> |
|----------------------------|-------------|---------------|
| TOTAL SUBCONTRACTORS       |             | \$0.00        |

| <b>REIMBURSABLES (c):</b>                | <u>Unit</u> | x | <u>Rate =</u> |
|--|-------------|---|---------------|
| Non-labor expenses (see attached detail) | 1           |   | \$355.20 ✓    |
| <b>TOTAL REIMBURSABLES</b>               |             |   | \$ 355.20     |

**Total Task 1** **\$ 12,343 ✓**

**Task 2: Work Plan Implementation**

| Classification (a)  | Hours         | x | Rate (b)    | =  | Cost               |
|---------------------|---------------|---|-------------|----|--------------------|
| Principal           | 3             |   | \$ 237.81 ✓ | \$ | 713.43 ✓           |
| Project             | 82            |   | \$ 127.47 ✓ | \$ | 10,452.54 ✓        |
| Senior Staff        | 20            |   | \$ 111.65 ✓ | \$ | 2,233.00 ✓         |
| CAD/GIS Technician  | 0.5           |   | \$ 104.76 ✓ | \$ | 52.38 ✓            |
| Project Coordinator | 2             |   | \$ 113.62 ✓ | \$ | 227.24 ✓           |
| Support Staff       | 1.25          |   | \$ 86.57 ✓  | \$ | 108.21 ✓           |
| <b>TOTAL LABOR</b>  | <b>108.75</b> |   |             | \$ | <b>13,786.80 ✓</b> |

| <b>SUBCONTRACTORS (c):</b>  | <u>Unit</u> | x | <u>Rate =</u>  |
|-----------------------------|-------------|---|----------------|
| Utility Locating            | 1           |   | \$570 ✓        |
| Drilling Services           | 1           |   | \$12,285 ✓     |
| Laboratory Analytical       | 1           |   | \$4,300 ✓      |
| <b>TOTAL SUBCONTRACTORS</b> |             |   | \$ 17,155.00 ✓ |

| <b>REIMBURSABLES (c):</b>                | <u>Unit</u> | <u>Rate =</u> |
|--|-------------|---------------|
| Non-labor expenses (see attached detail) | 1           | \$1,598 ✓     |
| <b>TOTAL REIMBURSABLES</b>               |             | \$ 1,597.80   |

**Total Task 2** **\$ 32,540 ✓**

**Table 1**  
**Fee Determination Summary Sheet**  
**Environmental Baseline Assessment Services**  
**Paine Field – Everett, Washington**

**Task 3: Data Management and Reporting**

| Classification (a)  | Hours     | x | Rate (b) | =         | Cost              |
|---------------------|-----------|---|----------|-----------|-------------------|
| Principal           | 7         |   | 237.81 ✓ | \$        | 1,664.67 ✓        |
| Senior Project      | 6         |   | 139.34 ✓ | \$        | 836.04 ✓          |
| Project             | 40        |   | 127.47 ✓ | \$        | 5,098.80 ✓        |
| GIS Analyst         | 10        |   | 125.47 ✓ | \$        | 1,254.70 ✓        |
| Data Specialist     | 3         |   | 113.48 ✓ | \$        | 340.44 ✓          |
| Project Coordinator | 5         |   | 113.62 ✓ | \$        | 568.10 ✓          |
| Support Staff       | 1         |   | 86.57 ✓  | \$        | 86.57 ✓           |
| <b>TOTAL LABOR</b>  | <b>72</b> |   |          | <b>\$</b> | <b>9,849.32 ✓</b> |

| <b>SUBCONTRACTORS (c):</b> | <u>Unit</u> | x | <u>Rate</u> | = |      |
|----------------------------|-------------|---|-------------|---|------|
| TOTAL SUBCONTRACTORS       |             |   |             |   | \$ - |

| <b>REIMBURSABLES (c):</b> | <u>Unit</u> | x | <u>Rate</u> | = |      |
|---------------------------|-------------|---|-------------|---|------|
| TOTAL REIMBURSABLES       |             |   |             |   | \$ - |

**Total Task 3** **\$ 9,849 ✓**

**Task 4: Project Management**

| Classification (a)  | Hours     | x | Rate (b) | =         | Cost              |
|---------------------|-----------|---|----------|-----------|-------------------|
| Principal           | 13        |   | 237.81 ✓ | \$        | 3,091.53 ✓        |
| Project             | 13        |   | 127.47 ✓ | \$        | 1,657.11 ✓        |
| Project Coordinator | 2         |   | 113.62 ✓ | \$        | 227.24 ✓          |
| Support Staff       | 1         |   | 86.57 ✓  | \$        | 86.57 ✓           |
| <b>TOTAL LABOR</b>  | <b>29</b> |   |          | <b>\$</b> | <b>5,062.45 ✓</b> |

| <b>SUBCONTRACTORS (c):</b> | <u>Unit</u> |  | <u>Rate</u> | = |      |
|----------------------------|-------------|--|-------------|---|------|
| TOTAL SUBCONTRACTORS       |             |  |             |   | \$ - |

| <b>REIMBURSABLES (c):</b> | <u>Unit</u> | x | <u>Rate</u> | = |      |
|---------------------------|-------------|---|-------------|---|------|
| TOTAL REIMBURSABLES       |             |   |             |   | \$ - |

**Total Task 4** **\$ 5,062 ✓**

**TOTAL** **\$ 59,794 ✓**

**Notes:**

- (a) Classifications shown are general, the actual invoice will show our employee's specific discipline (e.g., Senior Associate Engineer, Senior Geologist, Senior Staff Scientist).
- (b) Labor rates are based on maximum hourly rates contained in Exhibit D of Supplement No. 2 to Agreement No. OCC19/1-7.8(AP). Actual rates invoiced to the County will be based on actual direct salary rates for project personnel executing the work and the allowed ICR and profit as shown in Exhibit D, subject to the maximum hourly rates allowed for each position classification shown in Exhibit D.
- (c) Non-labor/reimbursable rates are shown on the attached detail sheets.  
 Mileage rate based on current IRS rate and subject to change as new rates are published by the IRS.  
 There are no markup charges for subcontractors per the agreement between LAI and the County

