



**PATRIOT ENGINEERING
and ENVIRONMENTAL, Inc.**

Engineering Value for Project Success

June 18, 2021

Stephanie Nelson, Sr. Account Manager
Indiana Department of Administration
Procurement Division
402 W Washington St RM W468
Indianapolis, Indiana, 46204

IDEM RFQ #21-67553

RE: Douglas Road Landfill Superfund Site
Feld Services, Operations and Maintenance (O&M) Services
Patriot Proposal No.: P21-0876-01E

Dear Ms. Nelson:

Patriot Engineering and Environmental, Inc. (*Patriot*) is pleased to submit this proposal to conduct Field Services, Operations and Maintenance (O&M) services at the Douglas Road Landfill Superfund Site located in Mishawaka, Indiana (Site).

Patriot was rewarded the current contract for O&M services at the Douglas Road Landfill Superfund Site in 2016 and for the past 5-years *Patriot* has performed all aspects of the previous and the current proposed scope of work. *Patriot* is very familiar with the tasks associated with the various sampling streams and the reporting requirements of the agency. With that, the regulatory agencies are familiar with *Patriot* key personnel, and have a professional working relationship established. *Patriot* has maintained the systems in place and therefore the costs and level of effort for continued maintenance and for nominal performance can be forecasted and managed. With the aforementioned history, *Patriot* has the ability and desire to establish realistic level of effort and budgetary estimates for the performance of this contract.

Patriot has reviewed the State's terms and conditions clauses provided with the Request for Proposal (RFP) and agrees with all clauses with no recommendations for changes. *Patriot* will comply with all clauses if awarded this project.

This proposal serves to acknowledge that *Patriot* understands the general information that was presented in the RFP Section 1. Additionally, this proposal serves as acknowledgement of *Patriot's* agreement with all requirements and conditions listed in the RFP Section 1.

Douglas Zabonick, President of Patriot Engineering and Environmental, Inc., is the authorized person signing this cover letter to commit *Patriot* to its representation and certifying the information in this proposal meets all the general conditions of the RFP.

Kendra Gutowski will serve as the Project Manager and will be the principal contact for this project. James Douglas (Doug) Lam will be the Senior Project Manager overseeing the work performed by Kendra. Kendra and Doug work out of the Indianapolis office located at 6150 E 75th Street in Indianapolis, Indiana 46250. The Indianapolis office phone number is 317-576-8058 and the fax number is 317+576-1965. Kendra can be reached on her direct line at 317-558-5060 or by email at kgutowski@patrioteng.com.

Patriot is not requesting that any information provided in this proposal be considered confidential information. *Patriot* acknowledges and accepts that all information contained in this proposal is subject to the Access to Public Records Act (APRA).

Thank you for this opportunity to provide these services. Please contact us at the Indianapolis office, 317-576-8058 if you have any questions or need clarification.

Sincerely,

Patriot Engineering and Environmental, Inc.



Kendra Gutowski
Project Manager



Douglas B. Zabonick
President

Patriot's Response to this RFQ includes the following:

1 - Conflict of Interest

Please accept this proposal as proof of *Patriot's* interest in providing the services requested. *Patriot* nor its employees, or the spouses or un-emancipated children of *Patriot* employees, does not have an actual or apparent Conflict of Interest.

2 - Minority/Woman Business Enterprise or Veteran's Business Enterprise Participation/Plan

By submission of this proposal, *Patriot* hereby acknowledges and agrees to be bound by the regulatory processes involving the State of Indiana's Minority and Women's Business Enterprise Program or Veteran's Business Enterprise.

Patriot proposes to meet the Women-Owned Business Enterprise (MBE) participation goal established in this RFQ by sub-contracting tasks relating to well maintenance activities to Raimonde Drilling Corp. (Raimonde). Specific tasks that will be sub-contracted to Raimonde will include: Task F5. Ms. Anne Leslie, President, will be the contact person for Raimonde. The specific dollar amount from this contract that will be directed towards Raimonde is estimated at \$8,510.00, approximately 5.5% of the total estimated fees for the project.

3 - Detailed Scope of Work and Cost Estimate

Patriot's narrative and technical approach to the scope defined in this RFQ is provided in "The Scope of Work" attached and the estimated costs to conduct these tasks are provided in **Attachment D**, "Contractor Estimated Project Costs." The cost estimate detail includes the estimated lump sum cost for each task and includes all of the necessary costs needed to complete work under the two (2) year contract.

4 - *Patriot's* Qualifications and Experience

Over its 26-year history, *Patriot* has performed over 4,000 environmental projects. These projects have ranged from due diligence studies, to site investigations, and remediation and closure. Many of these projects have involved studies addressing hazardous substance or petroleum response activities and have been administered through the Office of Land Quality (OLQ) of the Indiana Department of Environmental Management (IDEM).

Patriot's employees are located in eight (8) Midwestern offices, including six (6) Indiana-based branch offices from which to draw environmental and engineering staff to serve or manage this project. *Patriot* will manage this opportunity from its Indianapolis, Indiana office with assistance from the Fort Wayne, Indiana office located approximately 90 miles

southeast of Mishawaka, Indiana. Patriot's Indianapolis office has been providing professional environmental and engineering services for 26-years. *Patriot's* Fort Wayne office has been providing professional environmental and engineering design services since 2000 with a staff consisting of five (5) professionals and several qualified technicians and field personnel. Patriot's Fort Wayne office is in the unique position of having the resources of a large Midwestern firm yet being able to provide local, small-firm attention to our clients. Additional information and background concerning *Patriot* can be found at <http://www.patrioteng.com/>.

Patriot personnel are experienced with environmental inspections, low flow and micro purge sampling of monitoring wells, well installation, abandonment and redevelopment, landfill gas monitoring, inspection and maintenance of landfill caps, maintenance of vegetation, security fencing, and signs, coordination of sampling activities and reporting to the IDEM. *Patriot* has performed groundwater monitoring and O&M activities at the Douglas Road Landfill since 2016. Patriot has also performed several other groundwater monitoring and O&M activities for Superfund Sites, Resource Conservation and Recovery Act (RCRA) Corrective Action Sites, leaking underground storage tanks (LUST) sites and Voluntary Remediation Program (VRP) sites throughout Indiana. Related project experience/ government contracts relative to this project includes:


- Auburn Foundry CR 48 Hazardous Waste Landfill Site, DeKalb County, Indiana, IDEM Contract Number A305-3-29-S1, Contract amount: \$31,736.01.

O&M activities conducted include: groundwater monitoring well and surface water sampling, landfill inspections, mowing, tree removal and vegetation control, well inspections and maintenance, fence inspection and repair, burrowing animal control, and IDEM reporting.

- Neal's Landfill (New Castle Quarry), New Castle, Indiana: Work include environmental sampling, geotechnical investigation, and closure of the filled in quarry.
- Littleton Lake Landfill, Indiana: Work included soil sampling and RCRA Closure

5 – Subcontractor Information

Raimonde Drilling Corporation

Raimonde Drilling Corporation  are a reliable professional drilling company with 40 years of experience. With an experienced crew you can be sure Raimonde will be able provide complete rehabilitation and redevelopment and provide for proper and professional well abandonment. Raimonde is based out of Addison, Illinois but has done work throughout the state of Indiana. This firm is registered with the Indiana Department of Administration as a WBE.

US Lawns of South Bend

US Lawns of South Bend (US Lawns) has been providing commercial lawn care services since 1986 and has been providing the lawn care needs at the Douglas Road Landfill Superfund Site for the past several years. US Lawns will be responsible for the continued lawn care at the site, including but not limited to mowing, vegetative control, and road maintenance. US Lawns will mow the entire cap/cover, landfill perimeter areas, landfill drainage ditches, entrance road and the perimeter of the wetland treatment area in the spring and fall. Vegetative control will be performed in the spring and consist of an annual chemical treatment of nuisance plants and manual removal of vegetative growth on and along the perimeter fence. The site access road is in need of repairs and maintenance which includes treating the vegetation growing on the road and then adding additional gravel. *Patriot* and US Lawns understands that number 53 gravel will be used and must be four (4) inches deep and leveled. After road maintenance is completed, the access road will be treated annually if needed.

Pace Analytical National Center for Testing & Innovation

Pace Analytical National Center for Testing & Innovation (Pace National) is the only national environmental laboratory provider offering a single location/nationally certified model and a full national network model. Pace National has positioned themselves to be "Your Lab of Choice"; by delivering defensible data. Pace National has established the stability and experience necessary to achieve steady growth to guarantee the long-term support of new, ongoing, and future projects. Pace National will be subcontracted to continue performing the quarterly VOC TO-15 analysis of the eight (8) hour air sample from the landfill gas extraction system and the annual groundwater sampling analysis.

5- Work Activities to be Performed

Patriot proposes to provide the following field services and tasks:

Task A: Project Planning and Management, Site Visits/Meetings, Office Meetings, and Conference Calls

Upon receipt of the interim authorization memorandum from the IDEM for the continuation of O&M activities, *Patriot* will begin planning for the implementation of the specific activities needed to familiarize the project team with the status and current conditions of the Douglas Road Landfill Superfund Site. Planning efforts included in this task consist of a Kickoff meeting with IDEM staff, and a Site Visit with the IDEM Project Manager if necessary to discuss where the Site is regarding the overall project goal, changes being made to the tasks listed below, and any other pertinent topics. Since *Patriot* has been working on this project since 2016, the *Patriot* Team has an excellent understanding of the project background, goals, and tasks.

Management efforts included in this task are monthly progress conference calls, up to ten (10) additional conference calls, and eight (8) additional Site Visits/Meetings per the duration of the contract. The purpose of these meetings will be to discuss concerns, logistics, and issues involving the scope of work. Minutes of these meetings will be recorded and distributed within three (3) working days of the respective meeting.

Task B: Site Security and Perimeter Fence Inspections and Repairs

The perimeter fence, signage, and locks will be inspected one (1) time per month. Observations of the integrity and security of the perimeter fence and gates will be made to ensure that unauthorized personnel cannot enter the Site. Any trash or items within, against or near the fencing will be picked up during each inspection. Damaged areas will be noted, and corrective action(s) will be executed. In the spring, all locks will be lubricated.

IDEM will be notified when a repair to the fence is deemed necessary. *Patriot* will consult with IDEM and send pictures as well as a summary of the proposed repair prior to any actual repair work. Repair cost estimates for the fencing, fence posts, barbed-wire, gates, and locks and chains are provided in Attachment B, Task B.2.

Vegetation growing within the fence line will be noted and removed manually at least once per contract year. In addition, an IDEM-approved chemical treatment will be applied to the nuisance plant growth along the fence once a contract year.

Task C: Landfill Cap & Drainage Ditch Inspections & Maintenance, Mowing, Vegetative Growth Control, Nuisance Animal Control, Settlement/Erosion/Drainage Repairs & Oversight

The landfill cap and drainage ditch will be inspected per contract requirements. This will include cursory inspections once a month and a detailed inspection once per quarter. The perimeter and interior of the property will be walked to visually inspect for ruts, pits, breaches, holes and other indication of settling, collapse, animal activity, manmade disturbances and/or erosion that could comprise of the integrity of the cover. The presence of undesirable plant species (such as woody vegetation, phragmites, etc.) will be noted.

The perimeter drainage ditch will be inspected for the integrity of manholes and covers, obstructions to free flow of water into and out of the manholes and outlets, integrity of the cleanout covers, condition of the outlet pipes, and weed growth.

The landfill cap, landfill perimeter, and the drainage ditch will be mowed according to the schedule outlined in the RFQ, for a total of two (2) mowing events per year (during the spring and fall quarters). In addition, a chemical treatment will be applied on the perimeter drainage ditch and access road. This will occur two (2) weeks prior to the spring and fall mowing events.

Nuisance animals including muskrats and groundhogs will be controlled by the use of live traps. Live trapping will be accomplished by setting up and monitoring multiple traps placed at select locations. Captured live animals will be transported off-site and released at an IDEM approved location. Nuisance animal removal activities will be conducted on an as needed basis and Patriot will obtain written approval from IDEM before trapping events. This proposal assumes up to ten (10) trapping events total.

Task D: Landfill Gas System Inspections, Maintenance, and Repairs

The Landfill Gas (LFG) Collection System consists of a vacuum extraction blower with associated process piping, valves and controls (Blower System), a LFG Building, 15 LFG extraction wells (LG-1 through LG-15) and a monitoring network consisting of 18 LFG monitoring probes (GM-1 through GM-18).

The Blower System and LFG Building will be inspected two (2) times per month to ensure that the system is operational, make any necessary adjustments, check and replace the air filter elements, check and drain the moisture separator and floor sump, check the integrity of the LFG Building, and inspect/control for insects and rodents. If damage is found to the system during the inspection, *Patriot* will receive written approval from IDEM prior to making any necessary repairs. This proposal includes the cost to replace any damaged valves and above-ground plastic tubing for the landfill gas extraction wells. Documentation of the repairs will be included in the Quarterly Progress Report for the Landfill.

Maintenance and repairs to the LFG Building outlined in this proposal include the cost to paint and seal the exterior of the building and to replace the filters in the Carbonair landfill gas pump system twice per contract year.

Task E: Landfill Compliance Monitoring and Sampling, Analysis, and Data Validation

Patriot shall provide necessary staff and equipment to conduct quarterly monitoring, sample collection, analysis, and data validation for the LFG Collection System.

The 15 LFG extraction wells and 18 LFG monitoring probes will be monitored on a quarterly basis for methane, carbon dioxide, and oxygen using GEM™ 2000 Gas Analyzer (GEM-2000). These readings will be used to evaluate trends in the LFG generation rate and to aid in determining if adjustments are needed in either the Blower System or Vent Wells.

An eight (8)-hour effluent vapor sample will be collected on a quarterly basis from the blower discharge in order to aid in determining the amount of volatile organic compound (VOC) discharges to the atmosphere. The vapor sample will be collected using a Summa® canister and submitted to Pace National for VOC analysis using method TO-15. A Level IV Quality Control (QC) data package will be requested from the laboratory.

The results of the eight (8)-hour effluent sample will be used to determine the total VOCs and organic Hazardous Air Pollutants (HAPs) emission rates in pounds per quarter (lb/qtr). The emission rate will be calculated using the Mass Balance Equation and a discharge rate derived from the blower curve supplied in the O&M Manual. The emission rate will be compared to the major source thresholds as outlined in 326 IAC 2-7-1(22) to determine if an exceedance of air quality standards have occurred under the Clean Air Act (CAA).

Validation of the data results for the eight (8)-hour effluent sample will be performed by a *Patriot* professional trained in data validation procedures. The data will be examined to determine if the data collected meets the Data Quality Objectives (DQOs) outlined in the site-specific Quality Assurance/Quality Control Plan (QAPP), if appropriate sampling and Quality Assurance/ Quality Control (QA/QC) procedures were followed, and if documentation is adequate included data generated in the laboratory and in the field. A data validation report will be prepared for each quarterly sampling event. The report will include any "flag" data with qualifiers for data that does not meet QA/QC objectives.

Task F: Groundwater Monitoring Network Inspection and Maintenance, Water Level Measurements and Sampling, Analysis and Data Validation

Patriot will provide necessary staff and equipment to collect low-flow groundwater samples from the groundwater monitoring network and from the five (5) groundwater extraction wells (if operational). The wells are located both on- and off-Site and will be monitored, inspected, and sampled on an annual basis during the third (July-September) quarter.

The monitoring well network consist of a total of thirty-six (36) groundwater monitoring wells, seventeen (17) wells installed in the shallow aquifer (MW-1S – MW 17S), ranging in screen depths from 15 feet to 30 feet below ground surface (ft bgs), seventeen (17) wells installed in the intermediate aquifer (MW-1I-MS-17I), ranging in screened depths from 35 to 55 ft bgs, and two (2) wells in the deep aquifer (MW-01D and MW-04D), ranging in screened depths from 90 to 100 ft bgs. MW-06I, MW-06S, MW-08I, and MW-08S have been abandoned.

The components (wells) of the monitoring system will be inspected before sampling. Any visually apparent damage to well covers, locks, riser pipes, and protective casing or guard posts will be repaired as necessary, and weeds removed. The locks will be replaced with new locks, if necessary. The monitoring well numbers will be clearly identified on each outer well casing with a permanent marker or paint. The total depth of each well will also be measured.

Prior to sampling, the depth to groundwater and depth of all monitoring wells will be measured to the nearest 0.01-foot using a decontaminated Solinst Model 101 Water Level Meter to determine the height of the groundwater column within each monitoring well.

Patriot will be responsible for the collection and transportation of samples to the laboratory. The groundwater samples will be collected using low flow micro-purge methods according to IDEM technical guidance and procedures on micro-purge sampling techniques. Each monitoring well is equipped with a dedicated bladder pump. However, due to the condition of the bladder pumps, *Patriot* will use Monsoon, Proactive Pumps with a flow control valve to adjust the flow rate. Purging rates will vary depending on the groundwater recharge rate and drawdown rate in each well. Typical extraction volumes are expected to be in the range of 10 to 50 milliliters per minute, but not exceeding 300 milliliters per minute. To ensure the drawdown does not exceed the maximum drawdown, 0.3-feet; depths to groundwater will be gauged every 3 to 5 minutes during well purging.

Field screening of the groundwater will be monitored using a Horiba water quality meter and flow thru cell. The groundwater will be monitored for the following parameters: pH, temperature, specific conductivity, turbidity, and dissolved oxygen content, and sampled when parameters have been stabilized as outlined in the Sampling & Analysis Plan (SAP).

Prior to sampling the groundwater wells for metals, a new-inline 0.45 micron (μm) filter will be installed at the end of the sampling tube. Prior to extraction well sampling, the sampling port will be purged. Water samples will be collected directly from the sample port at each extraction well location. The groundwater sample collected for metal analyses from the extraction wells will be filtered by the laboratory. The groundwater samples will be collected in pre-cleaned, laboratory sample containers. Containers for each location will be sealed, labeled, recorded on a chain of custody form, and placed on ice in a cooler.

The samples will be delivered to Pace National following strict chain-of-custody protocols. Samples will be analyzed using U.S. EPA SW-846 for VOCs via Method 8260B, arsenic (dissolved) via Method 6010B, lead (dissolved) via Method 6010B, and iron via 6010B. One trip blank per cooler and four (4) field duplicates (one every ten samples) will be collected per sampling event. A Level IV QC data package will be requested from the laboratory.

The purge water will be collected in buckets and transported to the constructed wetland treatment ponds for disposal.

Upon completion of each sampling event, a summary of the sampling event will be described in the Annual Groundwater Sampling Report. This summary will include a discussion of the sampling event, water level measurements, potentiometric surface maps, field data sheets, and a comparison table of the analytical results to Site Closure Goals and applicable protection standards.

A *Patriot* professional trained in data validation procedures will review the data from the annual groundwater monitoring network samples. The data will be examined to determine if the data collected meets the DQOs outlined in the site-specific QAPP, if appropriate sampling and QA/QC procedures were followed, and if documentation is adequate included data generated in the laboratory and in the field. A data validation

report will be prepared. The report will include any "flag" data with qualifiers for data that does not meet QA/QC objectives.

Costs are set aside for complete rehabilitation and redevelopment and also for well abandonment for any damaged or unusable monitoring well, up to a maximum of four (4) wells during the contract period. This cost assumes a well depth of 100 feet or less for no more than one well and 55 feet or less for 3 wells.

Task G: Utilities and Maintenance

Patriot understands that IDEM will be responsible for the payment of electrical and telephone utilities associated with the Site's O&M activities. In addition, *Patriot* proposes a lump sum cost of \$800.00 per incident, up to eight (8) incidents for G.1 Utility Support Services, and \$1,000 per incident, up to 8 incidents for G.1 Utility Systems Repair and Maintenance. *Patriot* understands that these items are on an as/if needed basis and will not proceed with these tasks without approval from the IDEM project manager.

Task H: Project Documents and Reports

Patriot shall update the existing site-specific Health and Safety Plan (HASP). The existing HASP will be reviewed to confirm it addresses and follows all applicable requirements contained in Section 29 CFR 1910.120 and relevant Occupational Safety and Health Administration (OSHA) requirements applicable at the time of HASP preparation. The plan will be updated and revised annually. The cost includes up to four (4) hard copies and one (1) electronic (PDF format) copy of the final HASP.

Patriot understands that the QAPP should be updated and revised yearly and resubmitted to IDEM every five years for approval. Since *Patriot* extended the current contract with IDEM for an additional 6 months, *Patriot* is submitting an updated QAPP to IDEM for approval. *Patriot* will update/revise the site-specific QAPP and SAP as necessary on commencement of the project. The QAPP and SAP are prepared in accordance with current USEPA and IDEM guidelines and will documents the planning, implementation, and assessment procedures for the project, and describe QA/QC activities. The cost includes up to four (4) hard copies and one (1) electronic copy each of draft annual QAPP/SAP and the final QAPP/SAP.

Progress Reports for the Landfill will be provided on a quarterly basis. The progress report will describe tasks performed on the landfill for that quarter, including but not limited to the results of the inspections, any repair work, landfill gas monitoring, and exhaust sampling. *Patriot* understands that the reports will be due on the 20th following the quarter under review. The cost includes two (2) hard copies and one (1) electronic copy of the draft quarterly reports and one (1) hard copy and one (1) electronic of the final Quarterly Progress Report for Landfill.

Annual Sampling Reports documenting the groundwater sampling, results of all samples taken, validation reports, analytical reports, drawings or maps depicting the results, groundwater flow direction, and comparison of sample results to cleanup criteria, will be prepared and submitted within sixty (60) days of the event. The cost includes up to four (4) hard copies and one (1) electronic copy of the report.