



February 1, 2021  
Proposal Number: P05304

Mr. Lee Gosnell  
The Corporation of the Municipality of West Elgin  
22413 Hoskins Line, Box 490  
Rodney, ON N0L 2C0

**Re: West Elgin Landfill 2021 Site Monitoring and Operations Proposal  
Rodney, Ontario**

Dear Mr. Gosnell:

BluMetric Environmental Inc. (BluMetric™) is pleased to provide a work plan and cost estimate to complete the 2021 site monitoring program at the West Elgin Landfill Site in Rodney, Ontario. The work plan was developed based on requirements set out by the Ministry of the Environment, Conservation and Parks (MECP) in Environmental Compliance Approval (ECA) Number A051101 for the site originally dated December 21, 2005, and amended April 11, 2012, September 11, 2015, and April 4, 2017.

The work plan is further described below.

## **WORK PLAN**

The following lists the tasks set to be completed in 2021:

- Task 1.1: Spring 2021 Environmental Monitoring Program
- Task 1.2: Fall 2021 Environmental Monitoring Program
- Task 2.1: Spring Interim Assessment of Monitoring Results
- Task 2.2: Fall Interim Assessment of Monitoring Results
- Task 2.3: Annual Analysis and Reporting
- Task 3: Meeting Attendance

### **Tasks 1.1 and 1.2 - Spring and Fall 2021 Environmental Monitoring**

The on-site groundwater monitoring network is composed of fourteen (14) monitoring wells and two (2) piezometers in the adjacent wetland. Groundwater sampling in the Spring and Fall 2021 will take place in accordance with the bi-annual sampling schedule for the site as outlined in the

Tel. 519-742-6685

**BluMetric Environmental Inc.**

Unit 3B, 209 Frederick Street, Kitchener, Ontario, Canada N2H 2M7

**[www.blumetric.ca](http://www.blumetric.ca)**



table below. (It should be noted that there is no monitoring wells MW13 or MW16 through MW18 on-site).

Well	Sampling Frequency	Analytical and Field Parameters
All monitoring wells (MW1, MW2-R, MW2D, MW3, MW4, MW5-R, MW6, MW7, MW8, MW9, MW10, MW11, MW12, MW14, MW15, MW19) + QA/QC (1 duplicate for general chemistry and metals parameters and 1 trip blank for volatile organic compounds (VOCs))	Bi-annually (Spring and Fall)	General Chemistry, Metals, and VOCs  Combustible Gas

The depth to groundwater will be measured to calculate groundwater elevations at each location to confirm the direction of groundwater flow. A minimum of three well volumes will be purged or the well will be purged three times dry prior to sampling. Water samples will be collected from each location and submitted for analyses to ALS Laboratory Group of Waterloo, Ontario.

Samples will be analyzed for general chemistry parameters (Alkalinity, Ammonia, Colour, Conductivity, DOC, pH, TDS, Turbidity, Nitrate, Nitrite, Total Kjeldahl Nitrogen (TKN) Phosphorus, Sulfate, Chloride, Fluoride, Anion/ Cation Sum, Hardness, Ion Balance, Langelier Index and Saturation pH), a general metals scan (Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, P, K, Se, Si, Ag, Na, Sr, Tl, Sn, Ti, W, U, V, Zn, Zr), and VOCs.

One field duplicate sample (analyzed for general chemistry parameters and metals) and one trip blank sample (analyzed for VOCs) will be collected for Quality Assurance and Quality Control (QA/QC) purposes.

Methane concentrations will also be measured in the Spring and Fall of 2021 at all groundwater monitoring locations. The measurements will be taken concurrently with the groundwater depth measurements using a GEM™2000 Landfill Gas Analyzer specifically designed for use on landfills, including measuring methane gas in standpipes as well as to monitor landfill gas (LFG) extraction systems, flares, and migration control systems. The GEM™2000 samples and analyzes the methane, carbon dioxide and oxygen content of landfill gas and shows the results as percentages of CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub> and “balance” gas by volume. BluMetric will also measure methane concentration in any on-site buildings/ sheds/ or sea boxes where staff may enter.

### **Tasks 2.1 and 2.2 - Interim Assessment of Monitoring Results**

Following the Spring and Fall sampling events, the groundwater data will be added to the historical site data and reviewed. A letter summarizing the results of the groundwater monitoring and highlighting any anomalies will be prepared after each sampling event. The need for additional

monitoring events and potential changes to analytical parameters and monitoring frequencies will be re-evaluated at those times.

### **Task 2.3 - Annual Analysis and Reporting**

In accordance with the ECA, a report on the development and operation of the site, including the monitoring program, will be submitted to the MECP by April 30, 2022 based on the information collected in 2021.

This report will present the findings of the two preceding monitoring events (Spring and Fall 2021) and will make recommendations for any additional work or actions that may be required during subsequent monitoring periods.

Based on the assessment of the results from the previous monitoring period as well as historical data, recommendations will be made for on-going site monitoring with respect to the number of locations, frequency of monitoring and the necessary geochemical parameters for analyses. Any recommended modifications to subsequent monitoring programs will be presented to the Municipality of West Elgin and the MECP for their approval prior to modifying future programs. Likewise, any recommended operational changes will also be incorporated into this section.

### **Task 3 - Meeting Attendance**

BluMetric personnel look forward to continuing to work closely with the Municipality of West Elgin and its Municipal Council. Presentation of annual reports, project updates and the resolution of issues over the course of the project will be addressed through meetings with BluMetric and the Municipality of West Elgin. One on-site meeting a year has been assumed for budget purposes.

## **PROJECT SCHEDULE AND COST**

BluMetric personnel are available to begin work immediately upon proposal review and acceptance by The Municipality of West Elgin. Our estimate of costs for carrying this proposed work plan is provided below in Table 1.



**Table 1: Project Costs**

Task	Description	Professional Fees	Disbursements		
			Expenses	Laboratory Expenses	Totals
1.1 & 1.2	Environmental Monitoring	\$5,420	\$2,000	\$11,350	\$18,770
2.1 & 2.2	Interim Assessment of Monitoring Results	\$4,760	-	-	\$4,760
2.3	Annual Analysis and Reporting	\$4,750	\$100	-	\$4,850
3	Meeting Attendance & Project Management	\$5,850	\$200	-	\$6,050
<b>Totals</b>		<b>\$20,780</b>	<b>\$2,300</b>	<b>\$ 11,350</b>	<b>\$34,430</b>

The estimated total upset budget for this project is **\$34,430 (not including HST)**. Note that all expenses will be charged at a cost recovery rate plus 10%. Travel costs are based on the rate of \$0.555 per km.

BluMetric will not exceed this budget without prior approval from The Municipality of West Elgin. This budget includes all professional fees and disbursements, but does not include the HST.

## CONFIDENTIALITY

All information, data, material, etc. gathered as a part of this study shall be treated as confidential and shall only be discussed with The Municipality of West Elgin unless otherwise directed.

No contacts will be made to any third party without your full knowledge and approval. The contents of this proposal are considered confidential information, and as such is to be kept strictly confidential and shall not be disclosed in any form whatsoever to any other person, entity or corporation, without the prior express written permission of BluMetric.

## CLOSING

If the terms of this proposed work plan are agreeable to you, please sign one copy of the proposal in the knowledge that this constitutes a legal contract between BluMetric and The Municipality of West Elgin. We are prepared to start work upon receipt of the signed proposal from The Municipality of West Elgin.


Thank you for the opportunity to prepare this work plan and cost estimate for the 2021 site monitoring program.

If you have any questions, or require any additional information, please do not hesitate to contact the undersigned at (519) 588-3000.

Sincerely,  
**BluMetric Environmental Inc.**

  
Dana Kavanagh  
Environmental Technician

  
S'rana Scholes, B.A.Sc. P. Eng.  
Project Manager/ Senior Engineer

  
Ian Macdonald, M.Sc., P.Geo  
Senior Hydrogeologist

Encl.

*Ref: P05304 - West Eglin LF Proposal 2020.docx*



## PROJECT INITIATION FORM

FQ-2101 6/18/2016

Proposal Number: P06339 Date (m/d/y): 2/01/2021  
Project Manager: S'rana Scholes QMS Applies: Yes  
Project Name: West Elgin - 2021 Monitoring  
Project Location: Rodney, Ontario  
Project Description: Conduct Spring and Fall compliance monitoring for the Municipality of West Elgin Landfill, as well as inspections and reporting in accordance with the ECA for the site in 2021.

### COSTS

Budget - Type: Time and Materials with Cap  
Total Budget - Labour: \$20,780.00 Currency: CAD  
Total Budget - Other Fees: \$13,650.00  
Total Budget (all phases): \$34,430.00  
Retainer: \$0.00 Taxes: Applicable Taxes Excluded

Proposal is valid for 60 days from date of issue

### CLIENT INFORMATION

Client's Legal Name: Municipality of West Elgin

Client's Operating Name:  
(if applicable)

Client Contact Name: Lee Gosnell  
Client Contact Telephone: 519-785-0560 X232 , cell 519-878-3961  
Client Contact Email: roads@westelgin.net

Billing Address (in full): 22413 Hoskins Line, Box 490, Rodney, ON N0L 2C0

Billing Contact Name: Lee Gosnell, Genevieve Scharback

Billing Contact Telephone: 519-785-0560

Billing Contact Email: roads@westelgin.net, gscharback@westelgin.net, accounts@westelgin.net

Billing Instructions: send to billing contacts but also cc mbadura@westelgin.net, include excel budget table (generated by the PM)

Client P.O. Number: \_\_\_\_\_

Client Authorization: \_\_\_\_\_

Date (m/d/y)

Printed name

Signature





## STANDARD TERMS AND CONDITIONS

- 1 **TERMS OF OFFER:** Performance of services by BluMetric Environmental Inc. are subject to the terms and conditions set forth herein. No modification shall be effective unless in writing and signed by an authorized representative of BluMetric.
- 2 **CONSULTING SERVICES:** For work done on a time basis, BluMetric shall be paid for its services on the basis of the number of hours expended by each staff member or independent contractor (excluding for greater certainty any subcontractor referred to in Item 3 below) on the project, multiplied by the applicable hourly fee rate. BluMetric reserves the right to increase or decrease the rates charged to the Client as is necessary to reflect changes in its standard rates. Time spent in travel whether or not during normal business hours will be charged as consulting time. For work of an agreed and defined scope to be done on a fixed fee basis, BluMetric shall be paid the agreed upon amount for its services, in accordance with item 4.
- 3 **OTHER SERVICES AND COSTS:** Other services provided by BluMetric including but not limited to computer time, laboratory and instrument usage, printing, shall be provided at BluMetric's standard commercial rates for such services. Costs incurred for travel and subsistence, and for supplies and services obtained from third parties, including but not limited to telephone charges and subcontractors' services, are billed at BluMetric's cost plus an administrative handling charge of 10%.
- 4 **INVOICING AND PAYMENT:** Invoices shall be rendered monthly or as appropriate and are payable upon receipt. Retainers received on account (if applicable) will be applied to final invoices only. Prior to finalization of BluMetric reports, submissions or other project work, all outstanding, progress invoices must be paid in full.
- 5 **INTEREST:** If payment is not received by BluMetric within thirty (30) calendar days of the invoice date, the Client shall pay as interest an additional charge of 12.32% per annum, being one (1) percent of the PAST DUE amount per month, cumulative. Payment thereafter shall first be applied to accrued interest and then to the unpaid principal.
- 6 **COLLECTION COSTS:** In the event legal action is necessary to enforce the payment provisions of this Agreement, BluMetric shall be entitled to collect from the Client all costs and legal fees incurred by BluMetric in connection therewith.
- 7 **TERMINATION AND SUSPENSION OF SERVICES:** Either party may terminate this Agreement in whole or in part at any time by written notice to the other, such notice is effective upon receipt. In the event of such termination, BluMetric shall be paid in accordance with this agreement for services rendered and expenses incurred or committed to before and including the date of termination. If the Client fails to make payments when due or otherwise is in breach of this Agreement, BluMetric may suspend performance of services upon five (5) calendar days notice to the Client. BluMetric shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension caused by any breach of this Agreement by the Client.
- 8 **TAXES AND DUTIES:** All sales and usage taxes, customs duties, fees for permits, and similar charges applicable to services provided and intangible items delivered to the Client shall be paid by the Client. Where applicable, sales taxes will apply to all services and disbursements, as defined by current legislation.
- 9 **LIMITED LIABILITY & INDEMNIFICATION:** BluMetric agrees to hold harmless and indemnify the Client from and against liability caused by BluMetric's negligent performance of the services, limited as follows: BluMetric's liability for any claim, whatsoever or howsoever arising, in contract or in tort, related to the services provided under this agreement shall be limited to the lesser of (a) BluMetric's fees for the performance of those services and (b) the extent that such liability is covered by errors and omissions insurance from time to time in effect and which is available to indemnify BluMetric. In any event BluMetric's liability under this agreement shall be limited to the loss or damage directly attributable to the negligent acts or omissions of BluMetric, its directors, officers, servants or agents. In no event shall BluMetric, its directors, officers, servants or agents be liable for loss or damage caused as a result of circumstances beyond BluMetric's control or for loss of earnings or for other consequential damages howsoever caused. The Client in consideration of the provision of the services herein agrees to the limitations of BluMetric's liability aforesaid. The Client shall have no right of set-off against any billings of BluMetric under this agreement to perform services. Any opinion, report, drawing or other document or information provided by BluMetric under this agreement to perform services are for the account of the Client only. Any use which a third party makes of any opinion, report, drawing, or other document or information produced hereunder or any reliance on or any decisions based on such are the sole responsibility of said third party. BluMetric accepts no responsibility for any damage, whatsoever or howsoever caused, suffered by any third party as a result of decisions made or actions based on such opinions, reports, drawings or other documents or information.
- 10 **INSURANCE:** BluMetric, at its expense, carries professional errors and omissions liability insurance to the extent that it deems prudent. BluMetric's errors and omissions policy is available for inspection by the Client upon request. When requested, BluMetric shall supply to the Client a summary of the insurance coverage being maintained, including but not limited to comprehensive general liability, errors and omissions and automobile insurance. If the Client, because of its particular circumstances or otherwise, desires to obtain further insurance to protect it against any risk beyond the coverage provided by such policy, BluMetric shall co-operate with the Client to obtain such insurance at the Client's expense with BluMetric named as a co-insured under the policy or a waiver of subrogation thereunder in favour of BluMetric.
- 11 **CONFIDENTIAL INFORMATION:** BluMetric shall not divulge any confidential information acquired in the course of carrying out the services provided for herein. No such information shall be used by BluMetric without approval in writing from the Client.
- 12 **GOVERNING LAW:** Interpretation and enforcement of this Agreement shall be pursuant to the laws, statutes, and regulations of the Province of Ontario or the Province of Quebec, depending on the location of the BluMetric office from which the project is to be managed. If you are subject to UAV products, by signing this document, you give consent to BluMetric to fly over your property and install temporary ground targets if required. BluMetric complies to all UAV air regulations from Transport Canada and will ensure to have a valid SFOC before the work commences.

Revised 18 June 2016



BluMetric Environmental Inc.

