



December 18, 2020

Mr. Mark Pearson
Town of Plaistow
145 Main Street
Plaistow, NH 03865

Re: Proposal for Environmental Consulting Services 2021 Landfill Monitoring Program
Town of Plaistow, New Hampshire
Normandeau Associates, Inc. Opportunity No. 2021-06-030

Dear Mr. Pearson:

Normandeau Associates, Inc. ("Normandeau") is pleased to submit to the Town of Plaistow ("the Town" or "Client") this proposal for continued environmental consulting services. Normandeau services outlined below are associated with environmental programs required to be conducted by the Town at the landfill located on Old County Road (the Landfill). Below is Normandeau's proposed scope of work, schedule, and estimated fee for these services. This letter along with the accompanying existing Normandeau Standard Terms and Conditions Dated 6/27/2017 is to be considered an Agreement when executed by Client's duly authorized agent.

SCOPE OF WORK: This proposal covers the tasks needed to satisfy the Town's regulatory obligations for the Landfill including the water quality sampling program required under the existing Groundwater Management Permit (GMP) for the Landfill (GWP-198404075-P-005) issued by the New Hampshire Department of Environmental Services (NHDES) on July 10, 2017 as well as post closure activities at the Landfill including the landfill inspection, vapor monitoring, and annual post-closure monitoring report as required by the closure plan for the Landfill.

Task 1 - Landfill Water Quality Monitoring Program:

The water quality monitoring program (WQMP) for the Landfill consists of the collection of water quality samples from seven (7) monitoring wells, two (2) surface water sampling locations, and two (2) drinking water supply wells in October 2021. The groundwater monitoring wells include upgradient monitoring well MW-5 and downgradient monitoring wells MW-6, MW-7, MW-9, MW-10, MW-11, and MW-12. The surface water sample locations include SW-2 and SW-3, which are both located to the south of the Landfill. The drinking water sample locations include the Fieldstone Industrial Park facility located on Wilder Drive (DW-3) and the Town Recreation Field well at 51 Old County Road (DW-4). The primary sample collected at DW-4 will be collected from the well after the water treatment system (DW-4T). An additional sample will also be collected prior to the water treatment system to compare the effectiveness of the radon treatment unit (DW-4UT).

The groundwater, surface water, and drinking water samples will all be submitted for laboratory analysis of chloride, nitrate, total Kjeldahl nitrogen (TKN), iron, manganese, and cadmium. The samples collected from monitoring wells MW-6 and MW-9 as well as the two drinking water samples (DW-3 and DW-4T) will also be analyzed for arsenic. Both the treated (DW-4T) and the untreated (DW-4UT) samples collected from the Town Recreation Field well will also be analyzed for radon.

In October 2018, at NHDES' request and as required in the GMP, per- and polyfluoroalkyl substances (PFAS) were tested at five landfill wells (MW-5, MW-9, MW-10, MW-11, and MW-12). There were multiple detections of PFAS compounds and, consequently, NHDES requested that the Town of Plaistow perform a follow-up screening for PFAS during the October 2019 sampling round. Further detections of PFAS compounds were documented in 2019 which led NHDES to recommend further PFAS testing again in 2020. Normandeau results from the October 2020 testing shows continued detections of PFAS compounds at multiple wells, including exceedances of recently adopted Ambient Groundwater Quality Standards (AGQS) for PFAS compounds. Consequently, Normandeau anticipates NHDES will require continued testing for PFAS compounds at the boundary wells and DW-3. Therefore, we recommend PFAS testing at MW-2, MW-3, MW-6, MW-11, and MW-12 in October 2021.

Prior to collecting the groundwater samples, the depth to groundwater will be measured in each of the monitoring wells located at the Landfill. Following the groundwater level measurements, the monitoring wells required to be sampled will be purged of three (3) well volumes to remove any stagnant water from the wells to obtain a representative sample of the aquifer. The groundwater samples will be collected using high density polyethylene (HDPE) bailers or tubing and will be placed in bottles prepared by the analytical laboratory for the analyses to be performed. Grab samples will be collected from surface water and drinking water locations. Groundwater samples will be filtered in the field and analyzed for dissolved metals, while the surface water and drinking water samples will not be filtered and will be analyzed for total metals. Field measurements of pH and specific conductivity will be recorded for all water quality samples.

In accordance with the GMP requirements, Normandeau will prepare a summary report for the water quality sampling results including a summary table of all monitoring data, an updated groundwater contour map, and a copy of the analytical laboratory report. The summary report will be submitted to the Town and NHDES within 45 days of the October 2021 sampling round.

Task 2 - Landfill Post-Closure Monitoring Program:

The Post-Closure Monitoring Program includes the following tasks; 1) vapor gas monitoring, 2) biannual inspections of the Landfill and completion of Field Inspection Reports, and 3) preparation of the Annual Post-Closure Performance Report.

1. Vapor Gas Monitoring

There are currently 11 gas vents located across the Landfill and 19 vapor monitoring probes located around the perimeter of the Landfill as well as in the vicinity of the former Plaistow Highway Department garage immediately south of the Landfill and two (2) buildings located on the Fieldstone Industrial Park property to the south and southwest of the Plaistow Highway Department garage. There are currently no structures located on the north, east, or west sides of the Landfill.

To evaluate the effectiveness of the gas system performance at the Landfill, the existing gas vents will be monitored quarterly for explosive gases including methane, % lower explosive limit, carbon dioxide, oxygen, and hydrogen sulfide. The existing vapor monitoring probes will be monitored quarterly for explosive gases to monitor for the migration of explosive gases from the Landfill to surrounding areas or structures. Vapor monitoring will be conducted inside of the former Plaistow Highway Department garage located on the south side of the Landfill during the quarterly vapor monitoring. During January 2021 vapor monitoring will be conducted inside the former Highway Department garage and at the vapor monitoring probes located around

the garage (VP-1, VP-2, VP-14S, and VP-14D) to evaluate vapor concentrations in the vicinity of the garage during the winter season. The vapor monitoring data will be summarized in tables and graphs, which will be included in the Annual Post-Closure Performance Report.

2. Landfill Inspections

The Landfill will be inspected twice in 2021, as is required in NH Code of Administrative Rules Env-Sw 807.05(g), by Normandeau personnel to evaluate the condition of the landfill cap, gas vents and probes, and groundwater monitoring wells. The inspections will also include a review of the surface drainage system and vegetative cover as well as an inspection of the landfill cap for any areas of erosion. A Field Inspection Report (FIR) will be completed based upon the results of the field inspections. Inspections will be completed in April and October of 2021.

3. Annual Post-Closure Performance Report

Normandeau will prepare the Annual Post-Closure Performance Report summarizing the activities conducted at the Landfill including a landfill gas system performance report with the results of the vapor gas monitoring, a groundwater quality report with a summary of all parameters at all monitoring locations, the semi-annual inspections and the landfill post-closure FIR, and a summary of the overall cap performance and condition based on the above information and any areas of concern or recommendations for changes as appropriate. The Annual Post-Closure Performance Report will be prepared by Normandeau in January or February 2022 and will be submitted to both the Town and the NHDES. As required, the report will be reviewed and stamped by a New Hampshire Professional Engineer.

SCHEDULE: The schedule for the 2021 Water Quality and Post-Closure Monitoring Program is outlined in Table 1 below. Quarterly vapor monitoring will be conducted in March, June, September and December 2021 with the Highway Department garage vapor monitoring round conducted in January 2021. The landfill inspections will be conducted in April and October 2021. The water quality sampling round will be conducted in October 2021 with the water quality data submittal prepared in November 2021. The 2021 Annual Post-Closure Report will be completed and submitted in March 2022.

Table 1. Plaistow Landfill Water Quality and Post-Closure Monitoring Activities

Date	Activity
January 2021	Highway Department Garage Vapor Monitoring
March 2021	Quarterly Vapor Monitoring
April 2021	Semi-Annual Landfill Inspection
June 2021	Quarterly Vapor Monitoring
September 2021	Quarterly Vapor Monitoring
September/October 2021	Semi-Annual Landfill Inspection
October 2021	Water Quality Monitoring Sampling Round
November 2021	Submittal of 2021 Water Quality Data Report
December 2021	Quarterly Vapor Monitoring
March 2022	Submittal of 2021 Annual Post-Closure Performance Report

COMPENSATION: Normandeau's cost estimate for the 2021 Water Quality and Post Closure Monitoring program is \$19,713. A breakdown of Normandeau estimated fee by task and the total fee is outlined in Table 2. The cost includes Normandeau's labor and expenses as well as the cost of the analytical laboratory sub-contractor.

Normandeau will contact you immediately if any conditions are encountered that would significantly change the scope of work or cost associated with this proposal.

Table 2. Plaistow Landfill Water Quality and Post-Closure Monitoring Activities

Task #	Task Name	Estimated Fee
Task 1	Water Quality Monitoring Program	\$6,881
Task 2	Post-Closure Monitoring Program	\$12,832
Total		\$19,713

PAYMENT TERMS: Normandeau will invoice as follows: Monthly, on a time-and-material basis. Payment shall be made to us within thirty (30) days of receipt of Normandeau's invoice. Late payments shall incur interest at the rate of 1.5% per month over thirty (30) days. Normandeau may, at its sole option, terminate its obligations under this Agreement if any invoice is not paid within thirty (30) days of receipt.

POINT OF CONTACT: If you should have any questions regarding this proposal, please contact Mr. Joel Detty, 25 Nashua Road, Bedford, NH 03110 at (603) 637-1123, jdetty@normandeau.com

If this Agreement is acceptable, please sign this letter where indicated as Client and return one (1) executed copy to Normandeau's office, to confirm the agreement. If not executed within sixty (60) days from date of this letter, it may be subject to renegotiation. Normandeau Standard Terms and Conditions Dated 6/26/2017 are an integral part of this Agreement and are included in Attachment A for your reference.

Normandeau is pleased to have the opportunity to be of service.

Sincerely,

NORMANDEAU ASSOCIATES, INC.



Joel Detty
Project Manager



Curtis L. Thalken
Chief Executive Officer

Attachment A: Normandeau Standard Terms and Conditions Dated 6/27/2017

ACKNOWLEDGEMENT

Re: Proposal for Environmental Consulting Services 2020 Landfill Monitoring Program
Town of Plaistow, New Hampshire;
Normandeau Associates, Inc. Opportunity No. 2020-07-010

Town of Plaistow hereby acknowledges this to be an Agreement and agrees to the conditions as stated. Normandeau is hereby directed to proceed with the scope of services.

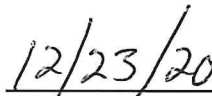
Town of Plaistow hereby acknowledges that it has the financial resources and intends to pay for services rendered in accordance with the conditions as stated herein and acknowledges that if invoices are not paid in full within 30 days of receipt, that the Normandeau may stop work until the invoices are paid.

Town of Plaistow warrants that the signature below represents the Client and possesses the full legal authority to execute this Agreement on behalf of Client.

CLIENT NAME: Town of Plaistow



Duly Authorized Agent



Date



Printed Name



Title

Attachment A: Normandeau Standard Terms and Conditions Dated 6/27/2017

NORMANDEAU ASSOCIATES, INC. STANDARD TERMS AND CONDITIONS

The terms and conditions set forth herein (these "Terms and Conditions") have been attached and are part of a written proposal (the "Proposal") dated 06/26/21 submitted by Normandeau Associates, Inc. (hereinafter called "Normandeau") to

Town of Plaistow
145 Main Street
Plaistow, NH 03865

(hereinafter called "Client"), which Proposal sets forth certain services to be undertaken by Normandeau for the Client (the "Services"). As used herein, the term "this Agreement" shall mean these Terms and Conditions and the Proposal collectively.

PERFORMANCE OF SERVICES

Normandeau agrees to perform the services as set forth in the Proposal, subject to any Unexpected Contingency (as defined in Section 6 below). The Services shall not be changed without the written agreement of both Normandeau and the Client, except for such changes to the Services as may be permitted, authorized, or contemplated by the Proposal.

2. PAYMENT

- (a) The Client agrees to pay for the Services in accordance with the payment terms set forth in the Proposal. Unless otherwise agreed to in writing by Normandeau and the Client, any agreed-upon changes to the Services requiring additional services shall also be paid in accordance with the same terms, whether such additional Services be undertaken (i) pursuant to Section 8 below, (ii) as a result of any governmental or court order or subpoena (including, but not limited to, preparation for and attendance at any hearing, or (iii) otherwise.
- (b) Normandeau will send its invoices to the Client on or before the twentieth (20th) of each month for Services rendered during the preceding month. The Client agrees to pay to Normandeau the amount shown in each invoice upon the Client's receipt of the invoice. Normandeau shall be entitled, at its sole option to apply a finance charge of 1-1/2% per month on accounts 30 days overdue. This is an APR of 18%.

3. WARRANTY

Normandeau warrants to the Client that Normandeau will exercise reasonable care, skill, competence, and judgment consistent with current professional standards in performing the Services and in meeting any estimate of cost or schedule set forth in the Proposal. In consideration of Normandeau's extension of this warranty to the Client, the Client agrees that THIS WARRANTY SHALL BE EXCLUSIVE OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED.

4. INDEMNITY

- (a) Normandeau agrees to indemnify, and hold harmless the Client and its agents, representatives, employees, successors, and assigns from and against any and all claims, damages, losses, liabilities, costs, and expenses (including, but not limited to, attorney's fees) arising out of, in connection with, or as the result of:
- (i) negligent performance of the Services or willful neglect; or
 - (ii) any breach or default by Normandeau of any of its obligations herein.
- (b) Likewise, the Client agrees to indemnify and hold harmless Normandeau and its agents, representatives, employees, successors, assigns and subcontractors from and against any and all claims, damages, losses, liabilities, costs, and expenses (including, but not limited to, attorney's fees) arising or alleged to have arisen in any way out of, in connection with, or as the result of:
- (i) willful neglect, omissions or negligent actions of the Client;
 - (ii) any breach or default by the Client of any of its obligations under this Agreement; and
 - (iii) any unintended use or reliance by the Client or by a third party as described in Section 14 below.
- (c) If requested to do so, Normandeau will provide proof of insurance coverage procured from a responsible insurance company licensed to do business in the State of New Hampshire, or the state in which the work will occur.

5. DAMAGES

The Client agrees that Normandeau's sole liability for any breach of its warranty as set forth in Section 3, or section 4 above, or as the result of any cause or causes of action in any way related to the Services and arising in contract, tort, strict liability, or otherwise, shall, in the aggregate, be limited to the obligation to pay the Client an amount equal to the lesser of:

- (a) the damages suffered by the Client as the direct result thereof, or
- (b) the total amount theretofore paid by the Client to Normandeau for the Services.

In no event shall Normandeau be responsible for any incidental, indirect, special, or consequential damages (including, but not limited to, loss of profits), even if Normandeau has been advised of the possibility of such damages.

6. UNEXPECTED CONTINGENCIES

If Normandeau is unable to commence the Services within the time period set forth in the Proposal (or, if no time period is set forth in the Proposal, then within ninety (90) days from the date of the Proposal) because of any Unexpected Contingency (as defined below), then Normandeau shall have the right, at its option, either to terminate its obligations under this Agreement or to renegotiate the terms and conditions set forth in this Agreement. Further, if Normandeau's performance of any covenant, agreement, condition, or term of this Agreement is prevented, delayed, made impossible, or otherwise interfered with by any Unexpected Contingency, then Normandeau's performance thereof shall be suspended during the continuance of such event and for a reasonable time thereafter, notwithstanding any provision of this Agreement to the contrary.

For purposes of this Agreement, an "Unexpected Contingency" shall mean:

- (i) strikes, lockouts, riots, unavoidable accidents, acts of God or of the public enemy, or unavailability of transportation;
- (ii) any lawful order issued by the United States government or any other federal, state, or local governmental authority;
- (iii) any unforeseen or unexpected contingency the non-occurrence of which was expressly impliedly or assumed in the Proposal; or
- (iv) any other cause beyond Normandeau's reasonable control.

7. HAZARDOUS MATERIALS RISK (where applicable)

- (a) The Client recognizes that there is an inherent risk in drilling borings, excavating trenches, or implementing other exploration methods in connection with a hazardous materials project. For example, penetration of an aquifer may induce cross-contamination.
- (b) The Client recognizes that the state of practice used by Normandeau in performing the Services is consistent with current accepted practice particularly with respect to hazardous materials. The Client recognizes that the standards applicable to the Services to be performed by Normandeau may change subsequent to the performance of the Services because of improvements in the state of practice.

8. RECOMMENDATION RE: ADDITIONAL SERVICES

Normandeau reserves the right to recommend to the Client from time to time whether, in Normandeau's professional judgment and as the result of the discovery of any latent site conditions or any other reason supporting said judgment and unknown to Normandeau at the time the Proposal was prepared, additional services should be performed beyond the Services set forth in the Proposal. If the Client decides that said additional services should not be performed, then Normandeau, at its option, shall be entitled to discontinue performing any further Services for the Client if Normandeau believes that its professional judgment or reputation would be impaired thereby. Upon any such discontinuance, the Client shall pay Normandeau for the Services performed to that date.

9. CONFIDENTIAL INFORMATION; DISCLOSURE

- (a) The Client shall retain and treat as confidential, and shall not disclose to any third party, any information or data furnished to the Client by Normandeau which relate to Normandeau's technologies, formulas, procedures, processes, methods, trade secrets, ideas, improvements, and/or inventions, which are designated in writing by Normandeau as confidential at the time of transmission and are obtained or acquired by the Client in connection with this Agreement.

(b) Subject to the provisions of subsection (c) and (d) below, Normandeau shall retain and treat as confidential, and shall not disclose to any third party, any information or data furnished to Normandeau by the Client which relate to the Client's technologies, formulas, procedures, processes, methods, trade secrets, ideas, improvements, and/or inventions, which are designated in writing by the Client as confidential at the time of transmission and are obtained or acquired by Normandeau in connection with this Agreement.

(c) Notwithstanding the provisions of subsection (b) above, the Client acknowledges and agrees that Normandeau shall be entitled to disclose, and/or permit to be inspected and/or copied, information about the Client and the Services performed by Normandeau under this Agreement when required to do so pursuant to governmental or court order or subpoena; provided, that Normandeau agrees to use its best efforts to notify the Client as soon as reasonably possible after Normandeau's receipt of any such order or subpoena. In the event that any governmental agency or court requires Normandeau to disclose, and/or permit to be inspected and/or copied, any information that has been designated in writing by the Client as confidential pursuant to subsection (b) above, Normandeau is hereby authorized by the Client to request that said governmental agency or court treat such information as confidential and not for public disclosure.

(d) Notwithstanding the provisions of subsection (b) above, if Normandeau, in its professional judgment, believes that a condition exists which poses a significant imminent danger to human health or the environment, Normandeau shall be entitled to disclose the same to the proper authorities; provided that, unless the condition requires immediate disclosure in Normandeau's judgment, Normandeau shall first notify the Client of said condition and afford the Client an opportunity to voluntarily disclose said condition to the proper authorities.

(e) Any information or data provided to Normandeau or the Client in accordance with (d) or (b) above that subsequently becomes available from other sources not as a result of disclosure by Normandeau or the Client shall not be deemed a breach of this contract.

10. NORMANDEAU'S PROPERTY

Any samples, reports, drawings, plans or other documentation (or copies thereof) furnished hereunder to Normandeau by the Client shall become and remain the property of Normandeau, unless the Client specifically requests their return in writing upon completion of the Services by Normandeau; provided that, in any case, Normandeau shall be permitted to retain for its records one (1) copy of any and all such information furnished hereunder to Normandeau by the Client.

11. NORMANDEAU'S KNOW-HOW

Unless otherwise expressly agreed to in writing by Normandeau and the Client, nothing herein shall be interpreted as preventing Normandeau from further application and/or use of any know-how acquired from the performance of the Services (excluding only confidential information covered by Section 9(b) above) or from applying and using any know-how Normandeau presently possesses.

12. COOPERATION

The Client agrees to cooperate fully with Normandeau and its agents, representatives, and employees in the performance of the Services and to take any and all such actions as reasonably be requested by Normandeau in connection therewith.

13. INDEPENDENT CONTRACTOR STATUS

Normandeau and the Client agree that Normandeau is an independent contractor and not a partner, employee, or agent of the Client for any purpose.

14. SCOPE OF OPINIONS

Unless otherwise specifically set forth in the Proposal, any information, documents, records, data, interpretations, or opinions given to the Client by Normandeau in the course of Normandeau's performance of the Services shall be for the Client's sole use and benefit and only in connection with the specific project for which Normandeau was engaged by the Client, and the same is not intended to be used or relied upon by the Client for any other purpose nor is it intended to benefit or be relied upon by any third party. Any such unintended use or reliance by the Client or by a third party shall be at the Client's or said third party's own risk. Further, any interpretation or opinion given by Normandeau to the Client shall be limited to the specific laws and/or regulations addressed in the Proposal as the same may be further qualified by the interpretation or opinion in question.

15. MISCELLANEOUS

(a) **SEVERABILITY.** If any term, condition, or provision of this Agreement or the application thereof to any person or circumstance shall to any extent, be held invalid or unenforceable, then the remainder of this Agreement, or the application of such term, condition, or provision to persons or circumstances other than to those to which it is held invalid or unenforceable, shall not be affected thereby, and each term, condition, and provision of this Agreement shall be valid and enforced to the fullest extent permitted by law.

(b) **BINDING EFFECT.** This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, personal and legal representatives, successors, and assigns; provided, that neither of the parties hereto shall be entitled to assign any of said party's rights under this Agreement without the prior written consent of the other party hereto.

(c) **ENTIRE AGREEMENT.** This Agreement sets forth the entire agreement of Normandeau and the Client with respect to the subject matter hereof. Normandeau and the Client expressly represent to and agree with each other that there are no oral or written representations, warranties, covenants, promises, agreements, conditions, or understandings between them other than as set forth in this Agreement.

(d) **CONFLICTING PROVISIONS.** In the event of any conflict between any of the terms, conditions, or provisions of this Agreement and any of the terms, conditions, or provisions of the Proposal, the terms, conditions, and provisions of this Agreement shall control unless otherwise specifically set forth in this Agreement.

(e) **MODIFICATION.** This Agreement shall not be modified or amended except in a writing signed by both Normandeau and the Client.

(f) **GOVERNING LAW.** This Agreement has been accepted and executed in accordance with, and shall be governed by and construed in accordance with, the laws of the State of

New Hampshire

APPROVED BY: Normandeau Associates, Inc.

Authorized Signature

Courtis Thibault 12/28/17
05/26/2017
Name Title Date

APPROVED BY:

Authorized Signature

Mark A. Pearson 12/20/17
Name Title Date