BURNSIDE

Landfill Monitoring and Engineering Services

Component 1 - Proposal

Township of Lanark Highlands | PW-2026-01
R.J. Burnside & Associates Limited | February 2026

Newmarket Office:
17345 Leslie Street, Suite 303
Newmarket, Ontario L3Y 0A4
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Contact:
Stephen Taziar, P.Eng., DCE
Project Manager
stephen.taziar@rjburnside.com

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BURNSIDE
[THE DIFFERENCE IS OUR PEOPLE]

February 24, 2026

Via: Print Submission

Township of Lanark Highlands
Attention: Kathryn Maton, Manager of Public Works
75 George Street
Lanark, Ontario K0G 1K0

Dear Kathryn:

Re: PW-2026-01 - Landfill Monitoring and Engineering Services
Proposal No.: 900060778.0001
Technical Proposal Submission

R.J. Burnside & Associates Limited (Burnside) respectfully submits this Technical Proposal to the Township of Lanark Highlands (Township) in response to your Request for Proposals (RFP) for the completion of compliance monitoring and annual reporting at six of your seven landfill sites.

We trust that this submission demonstrates Burnside's ability and intent to complete the tasks as outlined for this project. We acknowledge receipt of the RFP and Addenda 1 and 2, and Burnside's submission has incorporated the particulars of these Township documents.

Burnside's proposed team brings over 175 years of collective experience to this assignment, including the completion of numerous monitoring projects throughout Ontario. The proposed team will be led by **Stephen Taziar, P.Eng., DCE**, a Senior Project Engineer / Manager at Burnside with 36 years of landfill monitoring and related experience. Burnside, and our proposed team in particular, has extensive experience and expertise in supporting municipalities that manage both operating and closed landfill sites.

Our Newmarket and Pickering offices will serve as the base of operations for this project, and supporting team members from our other offices will seamlessly integrate with the project via cloud-based infrastructure. Furthermore, field staff will leverage commonalities between the landfill sites to streamline field sampling and reduce travel times, costs, and effort duplication.

Burnside declares that we do not hold any real or perceived conflicts of interest in undertaking this assignment at the time of submission.

We would like to thank the Township for the opportunity to bid on this important monitoring program, and we look forward to continuing our positive working relationship. Please do not hesitate to contact us should you have any questions or comments during your review of our submission.

Yours truly,

R.J. Burnside & Associates Limited

Stephen Taziar, P.Eng., DCE
Project Manager
ST/JRH:rc

James R. Hollingsworth, P.Eng.
Technical Leader, Solid Waste
QA/QC and Engineering Support

060778.0001 Technical Cover Letter
20/02/2026 10:19 AM

ADDENDUM # 1

TO THE CONTRACT DOCUMENTS
FOR

LANDFILL MONITORING AND ENGINEERING SERVICES
CONTRACT NO. PW-2026-01

TO ALL TENDERERS: January 26, 2026

The following changes, additions and/or deletions are hereby made a part of the Contract Documents for the Township of Lanark Highlands – RFP – Landfill Monitoring and Engineering Services – PW-2026-01, dated January 16, 2026, as fully and completely as if the same were fully set forth therein:

Additions / Replacements:

1. Replace '***Part "B" – Project Information, section 8 – Schedule of Meetings'*** within its entirety with the following:

After the Proposal has been awarded, a meeting schedule will be arranged between the Consultant(s) and the Township Representative to discuss schedules and job progress. The Township Representative will be conducting meetings as appropriate with the Consultant throughout all phases of the work.

All communications with the Township of Lanark Highlands are to be coordinated through the Project Manager and/or the Manager of Public Works. This includes data collection, field study work and meetings.

Meetings:

- Startup meeting with Township participants, familiarize with the Township landfills and determine the plan of action; and,
- A meeting may be held after the Township's review of the draft reports to ensure that comments and proposed edits are addressed."

2. The Township of *Lanark Highlands - Waste Management Plan* dated January 18, 2022 has been appended to this RFP for additional information.

QUESTIONS:

1. **Would you please indicate whether the proposal is to be submitted through the Biddingo portal, by email or in hard copy?**
   The information on the portal is a bit unclear as it indicates an address for physical submissions and also that Township of Lanark Highlands is only accepting online submission for this bid.

   ANSWER: Physical submissions will be accepted at the Township office located at 75 George Street, P.O. Box 340, Lanark, Ontario K0G 1K0 (Attention: Kathryn Maton, Manager of Public Works) until February 17, 2026 at 2:00 pm Eastern Time (E.T).

2. **Part B Task 2, requests that the two active landfills that require a year end topographic survey. We would like to confirm two active landfills that require a year end topographic survey and the approximate spatial area required for survey.**

   ANSWER: Currently, the two landfills which still have capacity (Snye Road and Robertson Lake) do not require topographic surveys, as they are currently not being filled. If the landfills are approved to be filled again, an annual topographic survey would likely be required. This is currently not within the Scope of Work

3. **Part B Task 4, states that there are 7 landfills listed in the introduction, however there is pricing information for 6 landfills (4 closed; and 2 active sites). We would like to confirm if the monitoring scope is for 6 or 7 landfills.**

   ANSWER: The monitoring is only required for six landfills. A seventh landfill, referred to as McDonald's Corners is the only landfill currently accepting waste within the Township, and is currently undergoing separate engineering services for expansion efforts. This landfill is not included within the scope of the RFP; however, there may be collaboration with the engineering work related to expansion.

4. **Part B Task 7 with respect to Engineering Support and Task 9: Underground Services Locates, would the Township like to add a provisional or contingency budget for these items to the RFP, or have the consultant provide scope change requests on an as needed basis post contract award. The level of expected effort is unclear at this time although there are recommendations in the Exp reports and MECP correspondence that indicate additional monitoring wells will be drilled as part of this program and development of trigger action plans need to be considered.**

   ANSWER: Engineering support will be considered based on a separate price chart which is to accompany this document with hourly rates for each assigned staff and sub-consultants proposed to be assigned to this project

   Underground Service Locates are to be included within the cost for the drilling programs in subsequent proposals submitted to the Consultant for engineering support.

5. **Part B Task 8 with respect to Schedule of Meetings, there appears to be additional monitoring, meetings and a draft report to be shared with the Town of Perth. May we confirm that the 'Town landfill' is one of the 6 landfills listed, or is there an additional site that should be included in the monitoring and reporting scope. This task also identifies that finalization of Terms of Reference which are not included in the RFP package. I expect those ToR are between the Township and Perth, but I would like to ensure there are no contractual obligations for potential bidders.**

   ANSWER: The Town of Perth is not affiliated with this RFP and has been removed.

6. **Part B Task 10 with respect to security and safety we would like to confirm which tasks (if any) require working from heights during the landfill monitoring program.**

   ANSWER: Working at heights is unlikely during the monitoring work, but all requirements under the *Occupational Health and Safety Act* must be adhered to by the successful proponent when conducting any work for the Township of Lanark Highlands.

This Addendum includes these four (4) pages.

The Tenderers shall acknowledge receipt and acceptance of this Addendum No. 1 by signing in the space provided and submitting the signed Addendum to the front of the Tender. Tenders submitted without this addendum are considered incomplete.

Yours Truly,

Kathryn Maton
Manager of Public Works

Receipt acknowledged and conditions agreed to this 19th day of February.

James R. Hollingsworth, P.Eng.
_____
TENDERER

_____
SIGNATURE

ADDENDUM # 2

TO THE CONTRACT DOCUMENTS
FOR

LANDFILL MONITORING AND ENGINEERING SERVICES
CONTRACT NO. PW-2026-01

TO ALL TENDERERS: February 5, 2026

The following changes, additions and/or deletions are hereby made a part of the Contract Documents for the Township of Lanark Highlands – RFP – Landfill Monitoring and Engineering Services – PW-2026-01, dated January 16, 2026, as fully and completely as if the same were fully set forth therein:

Additions / Replacements:

1. Replace '***Part "A" – Information to Bidders, section 2 – RFP Timetable'*** within its entirety with the following:

Issue Date of RFP	January 16, 2026
Deadline for questions	February 12, 2026 2:00 PM local time
Last addendum issue date (if any)	February 19, 2026
Submission deadline	February 24, 2026, 2:00 PM local time
Anticipated execution date for Agreement	March 2026
Irrevocability Period	Sixty (60) days

The RFP Timetable is subject to change. Bidders will be notified to any changes to the dates noted above by addenda.

2. The top of Page 19 of the RFP Document is to be given the heading of **Section 'C' – Proposal Evaluation**;

3. Replace '*Section "C" – Proposal Evaluation (page 19), section 1, Component 1 – Proposal*' with the following:

"Shall be a response to Part "B" – Project Information including any appendices, a cover letter, and a table of contents. The Proposal shall not exceed eight (8)

double-sided letter size pages (or 16 single-sided) in a minimum 12-point font including spreadsheets, which can be submitted in 11 x 17 format and shall count as one (1) page. Appendices such as detailed résumés and level of effort tables (excluding prices) may also be included and do not count towards the maximum number of pages."

4. The '*Township of Lanark Highlands Lanark Village Waste Disposal Site 2024 Annual Monitoring Report*' has been attached to this addendum and uploaded to Biddingo.

QUESTIONS:

1. **Can the most recent annual monitoring report be provided for the Lanark Village Site?**

   ANSWER: The report has been attached to this addendum.

2. **Middleview Site – can you please confirm the groundwater monitoring locations are as listed in Table 3.34 of the 2024 report and required parameters are included in Table 3.3 B. Can you confirm the surface water stations are as per Table 3.4A and the required parameter list is as per Table 3.4 of the 2024 report. Please confirm required scope of work is inclusive of the annual environmental monitoring and reporting**

   ANSWER: The monitoring locations and parameters listed in the 2024 annual monitoring report are considered current and indicative of future annual reporting requirements.

3. **Robertson Lake Site – Can you please confirm the number of monitoring wells for the Site as per the C of A. Can you please confirm the environmental monitoring is to be conducted in accordance with the 2008 C of A Amendment Schedule B of the March 28, 2008, C of A. Also please confirm the scope of work is only the environmental monitoring and reporting for the site.**

   ANSWER: The monitoring locations and parameters listed in the 2024 annual monitoring report are considered current and indicative of future annual reporting requirements. The consultant is to review the information presented and determine if there is further work to be completed, and what it would likely consist of.

4. **Please indicate whether the four overburden monitoring well installations for the Roberson Lake Site are to be included in the Scope of work, and if these fees are to be included in the Section "D" Form 1 – Pricing Form, or if these fees are only to be included in the financial proposal, with proposed scope of work included in the technical proposal.**

   ANSWER: The additional wells will be determined after award of the RFP, and is considered additional work. Separate engineering fees are to be included within the proposal as requested in Section D, Form 1.

5. **Watson Corners – can you please confirm that the number of monitoring wells, surface water stations, and parameter lists (Tables 3.3A through 3.4 of the 2024 annual monitoring report) are correct to comply with the C of A. Please confirm that the scope of work is only the environmental monitoring and reporting for the site.**

   ANSWER: The monitoring locations and parameters listed in the 2024 annual monitoring report are considered current and indicative of future annual reporting requirements. The consultant is to review the information presented and determine if there is further work to be completed, and what it would likely consist of.

6. **Snye Road Site – Please confirm the scope of work is the environmental monitoring and reporting as per the 2024 annual monitoring report. Is there a requirement to include the residential well monitoring? Please confirm the number of surface water stations and the required parameter list.**

   ANSWER: The monitoring locations and parameters listed in the 2024 annual monitoring report are considered current and indicative of future annual reporting requirements. The consultant is to review the information presented and determine if there is further work to be completed, and what it would likely consist of. Residential well monitoring is considered a component of annual monitoring requirements under the CofA.

7. **Flower Station Site – Please confirm that the monitoring wells, surface water stations, and parameter lists are to be scoped based on the 2024 annual monitoring report.**

   ANSWER: Yes.

8. **For additional works (MECP consultation, providing engineering advice on development and monitor well installations etc.) would it be reasonable to include our hourly rates? It would be difficult to scope and cost these items, without knowing the full context of what is required and where the projects are currently.**

   ANSWER: is indicated in section D, Form 1: A separate price chart is to accompany this document with hourly rates for each assigned staff and sub-consultants proposed to be assigned to this project.

9. **Please confirm the sites that will require a topographic survey. From my review, it seems as though Snye Road is the only one that may be reopening to accept waste. Will this site be reopening in 2026?**

   ANSWER: Active filling sites will require topographic surveys. As indicated in the RFP, additional work is required in order to open the Snye Road Site. This will likely not occur in 2026 with the additional work required and response to the MECP. Please refer to the MECP review memos for GW and SW.

10. **Could the Township confirm whether a submission consisting of eight double-sided pages (equivalent to sixteen printed pages) is acceptable for the Technical Proposal?**

    ANSWER: eight double-sided pages are acceptable.

11. **We understand that previous annual monitoring reports have been submitted in March of the year following the monitoring period. Could the Township please confirm whether this schedule remains acceptable, or if reports are now required by December 31 of the monitoring year:**

    ANSWER: Draft reports are required to be submitted to the Township for review by February 15th of the following year AT THE LATEST. All deadlines for MECP submissions outlined within the individual ECA's are to be reviewed by the consultant and adhered to by the Township and the Successful Proponent.

12. **We would like to formally request an extension of the RFP submission deadline.**

    ANSWER: This has been granted.

13. **The Township included with the RFP attachments the 2024 Preliminary Cost Estimate for Landfill Closure and Long-Term Monitoring for the Lanark Village Landfill (Site 200), and we believe that they intended to upload the 2024 Annual Monitoring Report for the Lanark Village Landfill. Can the Township please upload the 2024 Annual Monitoring Report for this landfill, like those uploaded for the other landfill sites?**

    Answer: The report has been appended to this addendum.

This Addendum includes these five (5) pages.

The Tenderers shall acknowledge receipt and acceptance of this Addendum No.2 by signing in the space provided and submitting the signed Addendum to the front of the Tender. Tenders submitted without this addendum are considered incomplete.

Yours Truly,

Kathryn Maton
Manager of Public Works

Receipt acknowledged and conditions agreed to this 19th day of February.

James R. Hollingsworth, P.Eng.
_____
TENDERER

_____
SIGNATURE

THE CORPORATION OF
THE TOWNSHIP OF LANARK HIGHLANDS
RFP – LANDFILL MONITORING AND ENGINEERING SERVICES
CONTRACT PW-2026-01

SECTION "D" – DECLARATION

(To be Signed and Submitted with Proposal)

THIS PROPOSAL IS SUBMITTED BY: R.J. Burnside & Associates Limited

TO THE TOWN OF PERTH

1. **I,** James R. Hollingsworth, P.Eng. **of** R.J. Burnside & Associates Limited

DECLARE that no person, firm or corporation other than the one whose signature or the signature of whose proper officers is or are attached below has any interest in this submission or in the contract proposed to be taken.

2. **I FURTHER DECLARE** that this Proposal is made without any connection knowledge, comparison of figures or arrangement with any other company, firm or person making a Submission for the same project and is in all respects fair and without collusion or fraud.

3. **I FURTHER DECLARE** that no, Employee of the Town of Perth, Elected Officials, other than the person(s) shown on the Form of Proposals, is or will become interested directly or indirectly as a contracting part or otherwise in the performance of the contract or in the supplies, work or business to which it relates or in any portion of the profits thereof, or in any such supplies to be used therein or in any of the monies to be derived therefrom.

4. **I FURTHER DECLARE** that the several matters stated in the said Submission are in all respects true.

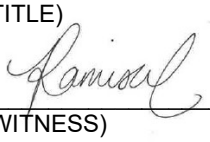
5. **I FURTHER DECLARE** that I have carefully examined the Request for Proposals document, and hereby acknowledge the same to be part and parcel of any contract to be let for the project therein described or defined and do all the work and to provide the services, and system mentioned for the municipal election for the prices stated on the Price Submission Form.

6. **I FURTHER DECLARE** that I have a clear understanding of all the work involved in this contract.

7. **I FURTHER DECLARE** that this offer is to continue open to acceptance until the formal contract is executed by the successful Consultant for the said project OR for a period of ninety (90) days after the closing date, whichever first occurs and that the Owner may, at any time, within that period, without notice, accept this Submission whether any other Submission has been previously accepted.

8. **I FURTHER DECLARE** that the awarding of the contract based on this Request for Proposals by the Owner shall be an acceptance of this Proposal.

9. **I FURTHER DECLARE** that in the event of default or failure on our part, that the Owner shall be at liberty to advertise for new Request for Proposals, or to carry out the works in any other way they deem best, and I also agree to pay to the said Owner the difference between this Request for Proposals and any greater sum which the said Owner may expend or incur by reason of such default or failure or by reason of such action as aforesaid, on their part, including the cost of any advertisement for new Request for Proposals; and to indemnify and save harmless the said Owner and their officers from all loss, damage, cost charges and expenses which they may suffer or be put to by reason of any such default or failure on our part.

R.J. Burnside & Associates Limited	 / James R. Hollingsworth, P.Eng.
(COMPANY NAME)	(SIGNATURE) (PRINT NAME)
1465 Pickering Parkway, Suite 200	Technical Leader, Solid Waste
(ADDRESS)	(TITLE)
Pickering, Ontario	 / Ramisa Chowdhury
	(WITNESS)
L1V 7G7	February 19, 2026
(POSTAL CODE)	(DATED)

I have received and understand the requirements of this document and submit this list of Consultant Teams/Sub-Consultants and costing.

R.J. Burnside & Associates Limited	
Company Name	***Signature***
James R. Hollingsworth, P.Eng.	Technical Leader, Solid Waste
Print Name	***Title***

1465 Pickering Parkway, Suite 200	Ontario	L1V 7G7
Street Address	Province	Postal Code
905-420-5777	226-526-9660	February 19, 2026
Telephone No.	Fax No.	Date

1. SECTION "D" FORM 2 - AODA DECLARATION

R.J. Burnside & Associates Limited 1465 Pickering Parkway, Suite 200, Pickering, ON L1V 7G7
telephone (905) 420-5777 **fax** (226) 526-9660 **web** www.rjburnside.com

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To: The Corporation of the Township of Lanark Highlands

From: R.J. Burnside & Associates Limited
February 19, 2026
PW-2026-01 | Landfill Monitoring and Engineering Services

Re: Declaration of Compliance – Accessibility of Ontarians with Disabilities Act (AODA)

Please accept this letter as confirmation that R.J. Burnside & Associates Limited is in compliance with the Accessibility of Ontarians with Disabilities Act and its regulations.

James R. Hollingsworth, P.Eng.
Technical Leader, Solid Waste
905-420-5777 / Jamie.Hollingsworth@rjburnside.com
R.J. Burnside & Associates Limited

Table of Contents

Appendices

1.0 Experience and Qualifications of Team Members

1.1 Company Experience and Resources

With more than five decades of providing engineering and technical services to municipal clients, as short-term focused projects or multi-year contracts, R.J. Burnside & Associates Limited (Burnside) can demonstrate the capacity and commitment of our professional staff. We employ over **450** professionals and support staff and are growing steadily. Regardless of location, we are an integrated team, collaborating remotely, utilizing expertise from different offices to implement best practices and apply lessons learned. We share common processes and procedures and leverage various technologies to create efficiencies in our approach.

Burnside has the necessary resources and experience required for the Township of Lanark Highlands' (Township) Landfill Monitoring and Reporting project. We can effectively deliver this project through our hands-on management structure with leaders who have a clear understanding of our resources and synergies between offices. During this proposal process, we reviewed staff capacity and skillsets and tailored our proposed project team to the Township's requirements.

1.2 Team Organization and Base of Operations

Please refer to Appendix A for Burnside's detailed project team organizational chart, presenting the roles and relationships amongst the project team members and with the Township. Supporting curricula vitae for each team member can also be found in Appendix A.

Our **Newmarket** (17345 Leslie Street) and **Pickering** (1465 Pickering Parkway) offices will serve as the base of operations for this project, and supporting team members from our other offices (see Appendix B) will seamlessly integrate with the project via cloud-based infrastructure as needed.

1.3 Project Management Team

Stephen Taziar, P.Eng., DCE, our proposed Project Manager for this assignment, is a Senior Project Engineer / Manager at Burnside with **33** years of experience in leading and completing projects involving landfill compliance monitoring, solid waste management assessments, landfill operation reviews, construction project environmental compliance programs, groundwater contamination evaluation, surface water impact assessments, groundwater resource analyses, and pit and quarry environmental impact assessments. Stephen brings extensive project management experience to this assignment, including project planning and budgeting, analysis, and reporting, managing multidisciplinary teams, and managing relationships with clients and approval agencies.

Directly relatable projects in which Stephen has played a leadership role to date include:

- **Halton Region** – 26 Years of Annual Compliance Monitoring and Hydrogeological Investigations for 11 Closed Landfills (budget of $90,000 / annum, excluding lab).
- **District Municipality of Muskoka** – 11 Years of Hydrogeologic Assessments, Annual Compliance Monitoring and Reporting, and Operational Reporting for ten Landfill Sites (budget of $218,000 / annum).
- **Region of Durham** – Eight Years of Annual Compliance Monitoring and Reporting for Seven Closed Landfills and Durham York Energy Centre (budget of $100,000 / annum).
- **County of Simcoe** – Six Years of Hydrogeologic Assessments and Compliance Monitoring Reporting for Nine Landfill Sites (approx. budget of $175,000 / annum).
- **City of Peterborough** – 13 Years of Annual Compliance Reporting for the Peterborough Waste Management Facility (network of 110 groundwater monitors and ten surface water stations; along with 25 standpipes to assess mounding within the waste cells).

As Project Manager for this monitoring program, Stephen will:

- Serve as the main contact person with the Township and the project team members.
- Comply with the Township's reporting requirements and technical protocols.
- Ensure high quality field work, laboratory, and database QA/QC.
- Regularly communicate with the Township's Project Manager.
- Proactively manage his team members and the overall project schedule.
- Provide quick and meaningful communication of monitoring results to the Township, including timely notification if results exceed the trigger level, reasonable use criteria, and other applicable compliance standards.
- Attend and present at project team meetings.
- Prepare and be responsible for cost control, and invoicing.
- Play a significant role in compiling and submitting annual reports.

Stephen will be supported by **Jamie Hollingsworth, P.Eng.** (QA/QC and Engineering Support, 37 years' experience) who will provide technical guidance, quality assurance and control review services, and engineering support to the project, as required. In addition, **Kim Hawkes, P.Eng.** (Technical Advisor, 36 years' experience) will be available to discuss any unusual concerns that may arise on an as needed basis. Key projects in which Kim and Jamie have played an integral role include:

- **Town of Perth** – Project Management of Perth Landfill Expansion Hydrogeological Investigations.
- **Town of Perth** – Landfill Site Design, Capacity and Operations.
- **Municipality of North Perth** - Elma Landfill Site, Employee Training and Operations Manual.
- **Municipality of North Perth** – Project Management of Landfill Site Assessments.
- **Town of Mono** – Project Management of Annual Landfill Monitoring and Ongoing Consultation.

- **Environmental 360 Solutions Ltd.** – Kingston Transfer Station and Material Recovery Facility Amendment.

1.4 Project Reporting and Field Team

Key support staff for our proposed project team are summarized in this section, with detailed curricula vitae found in Appendix A.

Anika Cole, M.Sc. – Monitoring and Reporting Lead: Anika brings 25 years of experience to this project, including extensive monitoring and reporting at the Municipality of Morris-Turnberry Landfill. Anika will provide overall technical management of the project, review the collected data and lead the development of the annual monitoring reports in conjunction with the field team.

Sean Quinlan, C.Tech., B.E.S. – Field Coordination Support: Sean brings 25 years of experience to this project, including managing multiple landfill monitoring programs for the Region of Waterloo. Sean will leverage this relevant experience to efficiently coordinate field staff for the multi-year sampling program, working closely with Anika.

Matt Valeriote, B.E.S. – Field Technician: Matt brings 14 years of field sampling and analysis experience to this project, including completing comprehensive monitoring work for multiple sites in the Region of Waterloo, Perth and North Perth. Matt will coordinate closely with Anika and provide field oversight for the field technicians on the monitoring program for this assignment, ensuring that data is sampled at the required intervals, is of the necessary quality, and is sent for analysis in a timely manner. Matt will be integral in supporting any technical guidance required for the Township's staff in ongoing data collection.

Emma Pentney, B.Sc. - Field Technician: Emma brings nine years of field sampling, data analysis and field team coordination experience. Emma has conducted monitoring for the Region of Waterloo - Former Kitchener Landfill Monitoring Program, the Region of Waterloo - Annual Groundwater Monitoring Program and Municipality of North Perth - Landfill Monitoring Program. Emma will work with other field staff to complete monitoring for all six sites and assist with laboratory analytical coordination.

Jeremy Harbinson, M.Sc. - Field Technician: Jeremy brings five years of experience in groundwater management and field sampling, including working on the Region of Waterloo and Municipality of North Perth projects. Jeremy will be a part of the field support team for data collection at all six sites and will be integral in supporting timely data uploads for quality checks.

Sam Gredig, B.Sc. (Env.), GIT – Field Technician: Sam brings two years of experience to this project and including ongoing monitoring work at landfills in Perth and Huron County. Sam will coordinate the sampling program in close collaboration with Matt, ensuring that all six sites are sampled according to the schedule and are of the requisite quality.

1.5 Subconsultant for Laboratory Analysis

Our approach to selecting a subconsultant for laboratory analysis is to receive competitive pricing from at least three CALA-accredited laboratories to ensure maximum value for our clients. Burnside has worked with many reputable specialist firms, and our rapport has always been very professional, cordial, and cohesive, such that our clients see a seamless team of professionals. Furthermore, we have established quality control procedures for incorporating the work of our subconsultants such that the final deliverables to our clients are of the necessary quality.

For this project, we have based our pricing on the incumbent - **Caduceon Environmental Laboratories** - overseeing all laboratory analyses. However, Burnside is prepared to use a laboratory preferred by the Township and resolve any budget differences. Burnside will review invoices to ensure they align with the expected work program, including number of sampling locations, frequencies, and parameters. We recommend that the laboratory be retained directly by the Township to save any additional costs by going through Burnside.

2.0 Approach and Methodology

2.1 Project Understanding

The Township currently provides waste management services to its residents and businesses through the operation of seven landfill sites: Lanark Village, Middleville, Watson's Corners, Robertson Lake, Snye Road, Flower Station, and McDonald's Corners. The Township is requesting annual compliance monitoring for each year of the contract term along with closure cost reporting for the first six of these sites, excluding McDonald's Corners, in Years 1 and 3. Year 5 will also require a closure cost report. Burnside understands that the MacDonald's Corners site is not included in the scope of the RFP but there may be collaboration for engineering services related to expansion. While the scope does not include annual topographic surveys at this time, this may be required in the future if the landfills are approved to be filled again. Additionally, the Township may request engineering support from the successful proponent to conduct additional related works at the sites. Burnside is aware of the recommendation to develop contaminant attenuation zones (CAZ) for Snye Road and Robertson Lake sites and ongoing monitoring and assessment will support this process.

The overall assignment objective is to provide the appropriate services to ensure the Township is operating in accordance with its current approvals and Ministry of the Environment, Conservation, and Parks (MECP) requirements while remaining on time and on budget. Our team is familiar with the regulatory framework, including the Environmental Compliance Approvals (ECA) and MECP guidance, and we are confident in our ability to deliver reliable data, clear reporting, and responsive communication. This proposal builds on our past experience and outlines a practical, efficient approach to meeting the Township's compliance and reporting needs over the full project term.

2.2 Project Management Approach

Our approach will deliver high-quality results through the designation of project-specific staff for efficient project execution in compliance with regulatory standards and meeting the requirements outlined in this RFP. Each team member's specialized expertise to tackle complex environmental monitoring services for municipalities aligns with the tasks outlined in our work plan. Our approach to communication, quality assurance and quality control, and project management software are described below. All other project work plan elements and assumptions are detailed in Section 2.4.

Communication – At Burnside, we see ourselves as an extension of the Township's team, providing regular communication with strategic Township input. This includes the sharing of all key background documents at project onset, and our team providing draft deliverables for Township review and comment. It is critical for Burnside to understand the Township's priorities, define the project vision and identify the path to success. In addition, Township requests for assistance or information are given priority by all team members. Emails and calls are responded to as soon as possible, normally the same day. Within our Financial Proposal, a provisional cost has been provided for a project initiation meeting with Township staff.

Quality Assurance and Quality Control (QA/QC) – A Quality Management System (QMS) is central to our projects. Our Project Manager, **Stephen Taziar, P.Eng., DCE**, along with the QA/QC team, is responsible for all deliverables. We will implement QC procedures to meet Township and Burnside requirements, addressing field documentation, reporting and other internal controls to maintain and continually improve the quality of our services. Quality deviations from the established design criteria are documented and corrective action is taken. Burnside's extensive experience provides insight into potential pitfalls and allows Burnside to develop a clear, efficient, and cost-effective approaches to project implementation. Burnside utilizes the Microsoft 365 suite for live document editing and management, seamless communication across project teams, and secure file transfers.

Project Management Software – Burnside uses a sophisticated enterprise management platform, Vantagepoint (Deltek), that integrates accounting data with project management metrics that will allow Stephen to keep track of project financial information in real time. Deltek will allow Stephen to complete a Work Breakdown Structure (WBS), overall budget, and project schedule, and metrics such as project costs, schedule, accounts receivable, and work in progress will be readily available once the WBS is initiated. With these metrics, the system will provide Stephen with reports such as Earned Value Tracking, Project Summary Status, Work in Progress, and Accounts Receivable. These reports can be provided to the Township as part of the regular invoice package.

2.3 Project Issues and Risks

Based on Burnside's experience, we are aware of the potential challenges that can arise during a multi-year monitoring program. Seasonal access limitations, equipment

reliability, and coordination with private property owners are all factors that require proactive planning and clear communication. Data quality and consistency are also critical, especially when working with large datasets and integrating results into the Township's database.

Our team is experienced in managing these risks through detailed scheduling, field-tested protocols, and responsive communication with the Township's project contact. We have built flexibility into our work plan to adapt to changing site conditions and regulatory requirements, ensuring that deliverables remain on track and compliant throughout the multi-year project.

2.4 Project Methodology

2.4.1 Topographic Surveying

Burnside understands annual topographic surveys will only be required if the landfill sites are approved to be filled again. The proposed field staff for this project are experienced in conducting topographic surveys as needed. Our general approach is that the surveys will be tied to a geodetic reference and update all pertinent features that have changed since the previous survey, taking into consideration existing fill areas, proposed fill areas, cover placement and grading, cover stockpiles, and changes to the monitoring network. The survey data will be used to estimate annual fill rates and calculate remaining site capacity. Burnside currently has eight in-house licensed drone pilots available to collect aerial site information to augment the topographic surveys. This drone footage can be used to aid project investigations, decision making, and can also serve as a marketing tool for the Township's use. Our financial proposal will include staff hourly rates if additional tasks are required outside of the scope of this RFP.

2.4.2 Closure Costs

Burnside has prepared landfill liability estimates since they were first required in 2001, with most clients seeking annual updates for their consolidated financial reports. Our estimates have been favourably reviewed by independent auditors. The Public Sector Accounting Board now requires PS 3280, often called Asset Retirement Obligation Costs, for which Burnside was an early adopter, revising our methodology to ensure compliance. Our closure cost reporting work will be in compliance with PS 3280.

Burnside will estimate costs for the closure (capital) and post closure care (mostly monitoring, but some remedial efforts are typically required) of the sites. We will determine capacity/site life to establish closure and post closure care periods. Estimates will be prepared in Years 1, 3, and 5 of the project.

2.4.3 Landfill Monitoring

Burnside will complete monitoring in accordance with the requirements outlined in the RFP, the most recent site monitoring reports (2024), and the site-specific ECAs. The field work, which includes a combination of surface water, groundwater, and landfill gas monitoring, will be completed in accordance with our Standard Operating Procedures (SOPs) which were developed over decades of sampling experience, MECP protocols,

and industry best practices. Each site has a unique monitoring network and sampling regime with common elements including sampling schedule, field equipment, and laboratory testing requirements. Commonalities will be streamlined to reduce field sampling and travel times, costs, and effort duplication. Burnside will provide all necessary equipment, tools and instrumentation, included as disbursements, for each site's monitoring program. To increase fieldwork efficiency, we have included the use of an all-terrain vehicle for monitoring events. A summary of the required monitoring is outlined below in Table 1.

Table 1 - Summary of Required Site Monitoring

	Monitoring Tasks	Water Level - Well	Stream flow	Landfill Gas - Well	Groundwater Sampling	Surface Water Sampling	Sample Duplicate (Well +SW)
Lanark Village[1]	Spring	21	5	20	21	5	2 + 1
	Summer	-	5	20	-	5	0 + 1
	Fall	24	5	-	24	5	2 + 1
Middleville[2]	Spring	17	9	6	19	9	2 + 1
	Summer	-	9	-	-	9	0 + 1
	Fall	17	9	-	17	9	2 + 1
Watson's Corners	Spring	5	5	5	5	5	1 + 1
	Summer	-	5	-	-	5	0 + 1
	Fall	5	5	-	6	5	1 + 1
Robertson Lake	Spring	13	4	6	15	4	2 + 1
	Summer	13	4	-	13	4	2 + 1
	Fall	13	4	-	13	4	2 + 1
Snye Road[3]	Spring	12	4	8	12	4	2 + 1
	Summer	-	-	-	-	-	-
	Fall	12	4	-	13	4	2 + 1
Flower Station	Spring	4	3	4	4	3	1 + 1
	Summer	-	-	-	-	-	-
	Fall	4	3	-	4	3	1 + 1

Notes:
[1] – Four wells to be tested for VOCs
[2] – One well to be tested for VOCs
[3] – One well to be tested for VOCs
SW – surface water
'-' – none

2.4.3.1 Subtask 1: Collect Groundwater Levels

Burnside will collect water level data at each required sampling session from all designated monitoring locations. Manual water levels will be measured using flat tape meters, with field staff across sites. Each measurement will be verified against historical ranges to identify any anomalies. If a reading falls outside expected values, it will be re-measured and flagged for review.

Our team includes licensed well-technicians ensuring all inspections and maintenance activities comply with Ontario Regulation 903. During each site visit, monitoring wells will be checked for security, accessibility, and physical condition. Routine maintenance may include replacing locks, caps, or labels, removing obstructions, improving surface drainage, and addressing standing water in protective casings. Any major repairs or resurveying needs will be communicated to the Township with supporting photos.

2.4.3.2 Subtask 2: Collect Groundwater, Leachate and Surface Water Quality Data

The stratigraphy varies between the sites resulting in monitoring wells that are installed in bedrock encountered from 1.02 to 25 m bgs and overburden ranging from 1.04 m bgs at all sites up to 11.8 m bgs based on available information. The range in well types, productivity and depths will require different sampling techniques such as:

- Traditional inertial sampling devices for most wells (i.e., Waterra tubing and check valves).
- Low flow sampling for low yielding wells.
- Submersible pumping for high volume purging of large diameter wells.

Sampling will be conducted by experienced staff using electronic water quality forms to document purge volumes, water levels, field parameters, and site conditions (see Section 2.4.3.5 for more details). All wells will be adequately purged prior to sampling, and Waterra FHT-45 filters will be used for field filtering, with single-use protocols to prevent cross-contamination. Based on the draft annual reports provided, the standard purging protocol for groundwater monitors at the six sites involves the purging of three wetted well volumes, or purging dry once, prior to sampling. Sampling crews will typically consist of two staff members, though single-person sampling may be used for deep wells. All samples will be properly preserved, stored in coolers with ice, and shipped with complete chain-of-custody documentation (copies of which will be emailed to the Township for tracking purposes).

Burnside will work directly with private well owners near the sites to coordinate quarterly sampling and maintain positive relationships. **Sean Quinlan, C.Tech., B.E.S. (Field Coordination Support)** has completed the MECP Clean Water Act Property Entry Course and will lead these efforts. Any significant issues or concerns raised by residents will be communicated to the Township within 48 hours, along with contact details and context for follow-up.

2.4.3.3 Subtask 3: Stream Flow Monitoring

Burnside will conduct stream flow monitoring at the required locations outlined in the 2024 Annual Monitoring Reports. Surface water flow measurements will be obtained using the floating object method which has historically been used at the sites. Depth and width measurements will also be recorded to calculate average flow rates. Burnside's team has extensive experience conducting stream flow assessments and will ensure consistency with past monitoring efforts.

2.4.3.4 Subtask 4: Landfill Gas Monitoring

Required landfill gas monitoring will be completed at selected wells using a Landtec GEM 2000 or GEM 5000 Plus Landfill Gas Meter to measure the percentage in air of methane, carbon dioxide, oxygen, and the remaining balance. Burnside's field team is experienced in performing gas monitoring following the required safety protocols.

2.4.3.5 Subtask 5: Data Verification, Interpretation and Management

Burnside will use a GIS-based data collection platform (e.g., Fulcrum) and develop a site-specific application that includes all Township landfill monitoring locations. Burnside has developed applications in Fulcrum for other landfill sites which minimize field data transcription and allow field staff to track progress throughout the day. The colour of a monitoring location changes once data has been entered. Fulcrum will be an invaluable tool for the initial project year as we familiarize ourselves with each site, and it will be connected to our in-house servers to allow Stephen and the technical team to view progress in real time.

Field and laboratory data will typically be collated upon receipt and undergo technical review within two weeks. If anomalies, changes in trends, recommendations, or general comments are identified during the monitoring program data reviews, they will be communicated promptly via email to the Township. Burnside will also remain responsive to the Township's needs, regulatory changes, and direction from the MECP that may result in changes to landfill monitoring. Burnside staff will be available to assist the Township with any additional tasks that may be required in association with the monitoring program. Where applicable, Burnside will provide technical oversight/guidance to municipal staff on ECA mandated data collection throughout the year.

Each year, we will review the groundwater and surface water monitoring program to ensure it continues to meet regulatory requirements and effectively evaluates environmental conditions both on- and off-site. Burnside will communicate these recommendations to the Township each year, and final recommendations in agreement with the Township will be appended to the Annual Monitoring Report and submitted to the MECP as part of the compliance package. Burnside will ensure that all updates reflect current site conditions, regulatory expectations, and practical field considerations. Burnside maintains positive, long-standing working relationships with the MECP, and are thus familiar with staff, policies, and procedures, which will be of benefit to the monitoring program. If the installation of additional groundwater monitoring wells is required, a separate proposal with associated costs will be provided to the Township.

2.4.4 Coordination of Analytical Services

Burnside will work directly with a CALA-accredited laboratory in agreement with the Township. Burnside will coordinate and manage all analytical services throughout the duration of the assignment, ensuring that laboratory results are delivered on time, meet QA/QC standards, and are formatted for seamless integration into the Township's data systems. Burnside, in agreement with the Township, will determine the parameters to

be sampled for and written copies of the analytical methodologies and QA/QC procedures will be provided to the Township.

Sample bottles will be ordered at least ten days in advance of each event, and pre-labeled with well IDs and relevant details to streamline fieldwork. The samples will be submitted with detailed chain-of-custody documentation, including sample identifiers, requested analyses, and signatures. Burnside and the selected laboratory will independently review the chain of custody to ensure accuracy and immediately resolve any discrepancies. Burnside will communicate proactively with the laboratory to promptly address any issues and ensure all analytical data meets the Township's quality and reporting standards.

2.4.5 Annual Monitoring Report

The annual monitoring reports for 2026, 2027, 2028, and 2029 will be prepared in accordance with each site's respective ECA, guidelines provided in the RFP, and appropriate industry standards. Draft annual reports will be provided to the Township for review and comment by February 15 of the following year. Upon receipt from the Township, we will address all comments and proposed edits and submit the final sealed and stamped reports to the Township in digital and hard copies as stated in the RFP along with appropriate formats of the supporting data included in the reports. Burnside is prepared to submit the final reports on the Township's behalf or provide you with PDFs for direct submission to the MECP, on or before March 31st, following the reporting year.

Each report will include a detailed interpretation of the previous year's monitoring data, supported by historical comparisons and trend analysis, in accordance with the MECP's Monitoring and Reporting for Waste Disposal Sites, Groundwater and Surface Water (2010 Guidance Document). The report will include but not be limited to the following:

- Groundwater flow maps and surface water feature location maps.
- Geologic cross-sections.
- Contaminant distribution figures.
- Vertical gradient calculations.
- Time-series graphs of indicator parameters.
- Statistical summaries (e.g., 5th and 95th percentiles) with exceedances highlighted.
- Appendices, including electronic certificates of analysis and historical data.

If significant changes to the report structure are proposed, Burnside will submit an outline of the hydrogeological and surface water sections to the Township for review.

2.4.6 Engineering Support

Burnside has in-house expertise in environmental consulting and landfill engineering, which will allow Burnside to seamlessly assist the Township with a variety of project tasks or issues. The Township may request additional engineering support to address issues beyond the scope of this RFP; Burnside's hourly rates for key and support staff are included in the Financial Proposal to address any additional scope.

For efforts anticipated to require more than five hours of staff time, Burnside will provide a work program and budget for Township approval. Additional support may include but not be limited to addressing operational issues or changes, addressing and responding to MECP comments or inspections, installing or repairing monitoring wells, attending MECP meetings, contract administration, assisting with annual operational and capital budgeting, and developing or implementing remedial options and contingency plans. Our project staff are experienced and highly capable to provide such assistance as required for the Township.

3.0 Proposed Work Plan, Schedule, and Level of Effort

3.1 Proposed Work Plan (Time-Task Matrix) and Level of Effort

Burnside has a long history of delivering high-quality, defensible data for municipal landfill monitoring assignments, and we have a deep understanding of the level of effort required to complete the Township's multi-year monitoring program efficiently and accurately.

A detailed work plan table (i.e., Time-Task Matrix) is provided in Appendix C, outlining the hours assigned to each task and sub-task, along with the team members responsible for task execution. Tasks itemized in the table include fieldwork, data management, QA/QC, reporting, and project coordination. Associated fees for each task and staff member are presented in the Financial Proposal submission, including the Section "D" Pricing Form (Form 1) and a list of hourly rates. Our time and staff allocation reflect realistic and efficient use of resources, based on our experience with numerous similar monitoring programs for a variety of Ontario municipalities.

3.2 Proposed Schedule

A detailed project schedule is presented in Appendix C and outlines the meetings, milestones, durations for each project task, and Township review time for each deliverable. The schedule has been developed to be consistent with the RFP's milestones and will be discussed with the Township and revised as necessary as the project progresses.

4.0 Project References

Please refer to Table 2 for a list of relevant Burnside monitoring projects that have relevance to this assignment, as well as references who may be contacted at the Township's convenience. Supporting information for these and other relevant Burnside projects can be found in Appendix D.

Table 2: Project References

REGION OF WATERLOO FORMER KITCHENER LANDFILL / GREENBROOK MONITORING (2004 – PRESENT)
Region of Waterloo - Ken Renner, Waste Management Professional 519-584-5612 / Ken.Renner@regionofwaterloo.ca
This multi-year, multi-component program includes both semi-annual and triennial monitoring and reporting, with integration of data from the adjacent Greenbrook Well Field. The program is completed in accordance with the Region's Environmental Compliance Approval (ECA) and includes interpretation of groundwater flow, water quality, and landfill-related impacts.
MUNICIPALITY OF NORTH PERTH NORTH PERTH LANDFILLS (2002 – PRESENT)
Municipality of North Perth - Mark Hackett, Environmental Compliance Manager 519-292-2069 / MHackett@northperth.ca
Monitoring program for three sites (90 monitoring wells and 20 surface water locations) – Elma, Listowel, Wallace: Groundwater, surface water, landfill gas monitoring, data analysis, annual reporting, upgrading monitoring network and well decommissioning as needed, development of contaminant attenuation zones and remedial action plans.
MUNICIPALITY OF MORRIS-TURNBERRY MORRIS LANDFILL MONITORING PROGRAM (1993 – PRESENT)
Municipality of Morris-Turnberry - Mike Alcock, Director of Public Works 519-881-6137 x227 / MAlcock@morristurnberry.ca
Since 1993, Burnside has managed the Morris Landfill monitoring program, consisting of sampling groundwater, surface water, and landfill gas twice each year and subsequent reporting. There are 20 overburden monitoring wells, six bedrock wells, five private wells, five surface water stations, and six landfill gas monitors. The monitoring wells range in depth from 3.7 m to 32.6 m, and the surface water monitoring network consists of two flow measurement locations, a discharge spring, and four stations along a municipal drain.

TOWN OF PERTH ANNUAL LANDFILL MONITORING PROGRAM (2008 – PRESENT)
Town of Perth - Grant Machan CET – Director of Environmental Services 613-267-3311 / gmachan@perth.ca
Burnside provides landfill services for the Town of Perth including annual compliance monitoring, waste volume surveys and calculations, and reporting. Other services provided over the years included Environmental Assessment Screening for landfill expansion and ECA Application; Design of landfill expansion area, including a French drain, groundwater extraction system, geosynthetic clay liner, and leachate collection system and Upgraded monitoring network and developed Environmental Monitoring and Contingency Plan.

5.0 Closing

Burnside thanks the Township for the opportunity to assist with this important project for your community. We are confident that we have the staff, experience, and expertise to deliver work that meets, and hopefully exceeds, the Township's expectations. Please do not hesitate to contact **James R. (Jamie) Hollingsworth, P.Eng.** (Technical Leader, Solid Waste) at 289-545-1051 or Jamie.Hollingsworth@rjburnside.com should you have any questions as you review this submission.

Respectfully submitted by:

R.J. Burnside & Associates Limited

James R. Hollingsworth, P.Eng.
Technical Leader, Solid Waste
JRH:rc

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix A

Project Team

BURNSIDE

Project Team Organizational Chart

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Township of Lanark Highlands

Stephen Taziar, P.Eng., DCE
Project Manager

James R. Hollingsworth, P.Eng.
QA/QC Manager

Kim Hawkes, P.Eng.
Technical Advisor

Monitoring and Reporting Team

Anika Cole, MSc.
Monitoring & Reporting Lead

Matt Valeriote, B.E.S.
Field Technician

Sean Quinlan, C.Tech., B.E.S.
Field Coordination Support

Emma Pentney
Field Technician

James R. Hollingsworth, P.Eng.
Senior Solid Waste Engineer

Jeremy Harbinson, MSc.
Field Technician

Sam Gredig, B.Sc.(Env.), GIT
Field Technician

Laboratory Analysis & Additional Technical & Administrative Support

Project Role

Project Manager

Education

B.A.Sc., Civil Engineering (including a Water Resources Option), University of Waterloo, ON 1990

Professional Societies

Professional Engineers Ontario

Employment Record

Senior Project Engineer, R.J. Burnside & Associates Limited (2024-Present)

Senior Project Engineer, WSP Canada (2014-2021)

Senior Project Engineer, GENIVAR (rebranded WSP Canada) (2009-2013)

Project Engineer, Jagger Hims Limited (GENIVAR Acquisition) (1990-2009)

Stephen Taziar, P.Eng., DCE

As Senior Project Engineer for R.J. Burnside & Associates Limited, Stephen has a solid base of practical experience in a wide variety of projects including landfill compliance monitoring, solid waste management assessments, landfill operation reviews, construction project environmental compliance programs, groundwater contamination evaluation, surface water impact assessments, groundwater resource analyses, and pit and quarry environmental impact assessments.

Stephen's 36 years of experience includes peer review and technical consultation for environmental monitoring programs at numerous landfill sites, construction projects, and other facilities. Landfill projects included solid waste management, landfill capacities, and waste diversion volumes.

He also has project management experience that includes proposal preparation and costing, project planning and budgeting, implementation and management, analysis and reporting, and liaison with clients and government agencies. Stephen has managed multidisciplinary teams for select projects and tasks, as required. Other experience includes promoting and integrating technological innovations for field and office programs.

Field experience that involved soil drilling and coring, rock coring, monitor installations, and pumping tests; along with extensive experience with various field instrumentation techniques, including monitoring and sampling equipment.

Stephen has a broad range of computer experience including spreadsheet and database management, and software programming. Historical experience in one-dimensional contaminant transport modelling, and two-dimensional hydrogeologic modelling of field data analyses for aquifer evaluation.

Database experience has included the design, creation, and maintenance of various administrative and project data management databases; including Access databases for importing, collating, and summarizing field monitoring/inspection results from various sources, such as field staff iPads, dataloggers, and laboratory reports. These databases permitted team members to easily review collected data, interpret the results, and create various summary tables and/or reports. The creation of these databases increased the overall efficiency of the project team.

Select Relevant Experience

Various Muskoka Landfills, District Municipality of Muskoka, ON (2002-2008, 2013-2018)

Hydrogeologic and hydrologic assessments and preparation of annual compliance monitoring reports for 12 landfill sites in sand and granite bedrock settings. Included benthic studies at two sites (Bracebridge and Gravenhurst) to determine influences along adjacent streams, and supplemental hydrogeological assessments at select sites to determine potential off-site influences. The annual reports included the annual operations data for the sites, including amounts of waste received/landfilled, and calculations for remaining site capacities at the active sites.

Closed Halton Landfills, Region of Halton, ON (1995-2021)

Hydrogeologic and hydrologic assessments and/or preparation of annual compliance monitoring reports for 11 landfills in a clay and shale setting. Included assessment and implementation of leachate mound reduction options, assessment of potential influences on off-site water resources, and assessment of potential off-site landfill gas migration.

Peterborough Waste Management Facility, City of Peterborough, ON (2008-2021)

Peer review and technical input for the preparation of the annual compliance monitoring report for a site in an overburden and bedrock setting. The annual report included assessment of potential off-site influences on surrounding water resources, assessment of the leachate collection system, and effectiveness of the hydraulic trap design within the active area of the site.

McDougall Landfill Site, Municipality of McDougall, ON (2007-2021)

Hydrogeologic and hydrologic assessments, routine groundwater and surface water monitoring program, and preparation or peer review of annual compliance monitoring reports for a site in a sand and bedrock setting. This program included leachate management and treatment aspects and the annual reports included summations of landfilling operations for the year.

Rideau Lakes Landfill Sites, Township of Rideau Lakes, ON (2017-2021)

Peer review and technical input for the preparation of annual compliance monitoring reports for four landfill sites in various overburden and bedrock settings. The annual reports included the annual operations data for the sites, where applicable, including amounts of waste received/landfilled, and calculations for remaining site capacities at the active site. The program included supplemental hydrogeological investigations which incorporated PFAS indicator parameters.

Caron Street Landfill, Municipality of Clarence Rockland, ON (2017-2021)

Hydrogeologic assessment for landfill site closure plan and technical input for supporting studies and documentation to permit use of a portion of the site as a stormwater management pond for an adjacent subdivision.

Huron and Kinloss Landfills, Township of Huron-Kinloss, ON (2018-2021)

Peer review and technical input for preparation of annual compliance monitoring reports for two landfill sites in various overburden settings. The annual compliance monitoring program included groundwater and surface water monitoring components.

Various Durham Landfills, Region of Durham, ON (2008-2016)

Hydrogeologic and hydrologic assessments, routine groundwater and surface water monitoring, gas monitoring, and preparation or peer review of annual compliance monitoring reports for seven landfills in sand and clay settings. Included assessment for potential implementation of constructed wetland techniques, re-grading options for remediation of off-site influences, and assessment of landfill gas migration.

Durham-York Energy Centre, Region of Durham, ON (2012-2016)

Program included bi-annual surficial soil sampling at select locations to assess potential effects of emissions from the 'energy from waste centre'. The program also included the installation, operation, interpretation and reporting for two surface water Sondes along an adjacent stream. The data obtained from the instruments was used to assess potential influences on the surface water from the adjacent facility.

Various Muskoka Depots, District Municipality of Muskoka, ON (2013-2018)

Preparation of annual operational reports for five waste depots.

Erskine Landfill Site, County of Stettler, AB (2013-2016)

Technical and peer review of assessments and closure plan for an inactive landfill site. The work program included monitor installations, groundwater monitoring, and assessment of potential landfill gas migration.

Various County of Simcoe Landfill Sites, County of Simcoe, ON (2011-2015)

Peer review and technical consultation for hydrogeologic assessments and annual compliance monitoring reports for nine landfill sites (in addition to Landfills 11 and 16 listed below). The annual reports for active sites included the operations data for the sites, incorporating amounts of waste received/landfilled for applicable sites.

Landfill Site 11, County of Simcoe, ON (1998-2009, 2011-2015)

Hydrogeologic assessments and preparation of annual compliance monitoring reports for landfill site in a sand setting. Included assessment of purge well performance, annual remaining site capacity assessments, and summation of annual on-site operations.

Landfill Site 16, County of Simcoe, ON (1995-2009, 2011-2015)

Hydrogeologic assessments and preparation of annual compliance monitoring reports for landfill site in a sand setting. Included assessment of purge well performance, determination of appropriate attenuation zone areas, and summation of annual on-site operations.

Essex County Landfill No. 1, County of Essex, ON (1995-1996)

Preparation of annual compliance monitoring reports for landfill site in a clayey soil setting.

Carden and Mariposa North Landfill Sites, City of Kawartha Lakes, ON (2002)

Hydrogeological assessments to determine existing on-site, and local, subsurface conditions and provide recommendations for reducing potential off-site influences on local surface water and groundwater resources.

Wastewater Management

Various Septage Lagoon Sites, District Municipality of Muskoka, ON (2002-2008, 2013-2018)

Hydrogeologic and hydrologic assessments and preparation of annual compliance monitoring reports for eight septage lagoon sites. Included performance evaluation studies for most sites as part of the renewal process for the Certificates of Approval.

W.A. Bill Johnson Biosolids Management Centre, Region of Halton, ON (2010-2021)

Technical assistance and peer review of compliance monitoring program for a biosolids management facility in a clay and shale setting.

Environmental Assessment and Site Remediation

Port Lands Flood Protection and Enabling Infrastructure, Toronto, ON EllisDon (2019-2021)

Ongoing surface water monitoring program within the Port Lands area to assess potential influences of construction activities on water quality within the waterways adjacent to the project areas. The construction activities are associated with the construction of infrastructure to limit flooding risk for the communities of the Port Lands, South Riverdale, Leslieville, south of Eastern Avenue, and the First Gulf/Unilever development sites. The office component of the monitoring program also involved the creation of a project specific database for the collation and interpretation of the monitoring data. The monitoring program included turbidity monitoring twice per day at seven established surface water stations, and four water sampling events each quarter at five stations. The field data was uploaded daily from the field staff iPads and available for review and interpretation in the office by team members on an ongoing basis.

Highway 427 Expansion, York Region, ON Link427 (2018-2021)

Ongoing surface water monitoring program as part of the construction activities for the extension of Highway 427 between Highway 7 and Major Mackenzie Drive. Responsible for peer review and consultation for the installation, monitoring, and reporting strategy for four surface water monitoring stations. This program included surface water chemistry and water level data analysis, to ensure compliance with project conditions; and included the preparation of bi-weekly and bi-monthly reports for WSP's internal project manager and the Toronto and Region Conservation Authority, respectively.

Huntsville Station Street, Huntsville, District Municipality of Muskoka, ON (2007)

Assessment of soil contamination and appropriate disposal options for excavated material along re-construction of street.

Dorset UST Investigation, Dorset, District Municipality of Muskoka, ON (2004)

Investigation and assessment of previous gas station UST discovered during construction of roadway. Included delineation of pre-existing tank locations, tank removal, and assessment of soil contamination with appropriate disposal options for excavated material.

Skyway Works Yard, Burlington, Region of Halton, ON (1999)

Investigation and assessment of existing UST influence on adjacent soil and groundwater quality.

Milton Works Yard, Milton, Region of Halton, ON (1999)

Investigation and assessment of existing UST influence on adjacent soil and groundwater quality.

Rural Servicing and Water Supply

Water Well Monitoring Program, Ontario Realty Corporation, ON (2000-2002)

The program involved routine water sampling and disinfection of water wells, if required, for rural properties managed by the client. Program included the coordination of field staff, collation and distribution of laboratory results, and the provision of various daily tracking statistics to the client. This included the updating, expansion, and maintenance of the Access database initially provided by the client to track the progress of each property, which also served as a link between the project team and client staff.

Rural Servicing, Various Projects, ON (1990-1997)

Involved conducting water well and test well pumping tests, water quality sampling, test pitting, nitrate loading and water budget assessments, and hydrogeologic interference assessments for proposed rural residential and golf course developments.

Simcoe County Board of Education, County of Simcoe, ON (1992-1997)

Water quality monitoring program for administrative building, and sampling events at select schools, to assess drinking water quality compliance.

Tottenham Pit, Tottenham, ON (1997-2003)

Water quality and hydrogeologic monitoring program, and preparation of the annual compliance monitoring reports, for an active sand and gravel pit.

Geotechnical

Glovers Road Development, Oshawa, ON (1997)

Geotechnical investigation for the construction of townhouses adjacent to a landfill site. The work program also included hydrogeological and landfill gas migration assessments.

Wildlife Centre, Midland, ON (1997)

Soils inspection and geotechnical investigation for the construction of a public presentation centre.

Retaining Wall, Huntsville, ON (1996)

Inspection and assessment of a retaining wall partial failure, designed and constructed by a third party, and participation in a hearing.

Foundation Inspection, East Gwillimbury, ON (1996)

Soils inspection and geotechnical assessment for a liquid manure tank foundation.

James R. Hollingsworth, P.Eng.

As Technical Leader of Solid Waste Services, James Hollingsworth is responsible for managing workload distribution, developing staff and corporate capabilities (ability, training, motivation, mentoring), quality control, staff utilization and human resources for the members of the solid waste group. Solid waste related client services, business development, project management and engineering are also part of James' responsibilities, providing cost effective practical solutions for private sector, public sector, Indigenous, and international clients.

James' wealth of experience as a project engineer and project manager for waste management related studies ranges from waste management planning and Environmental Assessment to design, construction and operation of collection, transfer, compost and recyclables processing, and final disposal. He has worked led teams to complete Waste Management Master Plans, Strategic Planning Studies, siting studies, disposal alternatives reviews, waste composition studies, cost analysis, facility development and implementation plans. He has been called upon to share his expertise through several landfill and transfer station operator training sessions, providing practical advice for the day-to-day waste management operations for supervisors and staff.

While James' career has focused primarily on waste disposal issues, his talents have also been used in other environmental fields. James has used his considerable experience with economic evaluations, numerical modeling methods, computer-aided design, site terrain and volumetric modeling, and computer programming to assist in the completion of Burnside's many and varied projects.

Site Operations, Design / Redesign and Construction

Landfill Capacity, Compliance, Cost Estimates and Groundwater Monitoring Review, Township of Armstrong, Earlton, Ontario (2025 – 2026)

Project Manager and senior engineer for the landfill assessment, presentation to municipal council, and reporting.

Waste Diversion Site Capping and Bunker Design, City of Orillia, Ontario (2025 - Ongoing)

Senior Solid Waste Engineer and QA / QC for design and tendering of final closure cover of cells 6 and 7, and development of new public waste drop-off area at the Orillia Waste Diversion Site.

Waste Management Facility Design and Operations Plan, South Fill Area, County of Oxford, Ontario (2024 - Ongoing)

Project Manager addressing MECP requirement for D&O Plan update to allow operation of South Fill Area (SFA). Hydro One corridor divides the currently operating North Fill Area from the SFA. SFA will provide 2 m^3 of disposal capacity. Project includes ECA-Waste and ECA-OWRA amendments plus assessment of field conditions to address Species at Risk Act concerns.

Profession

Environmental Engineer

Education

B.Sc., Mechanical Engineering, Queen's University, Kingston, 1989

Professional Societies

Professional Engineers Ontario

Designated as a Consulting Engineer (June 2014 to March 2024)

Ontario Society of Professional Engineers

Waste to Recovery Ontario (W2RO, formerly Ontario Waste Management Association)

- 2021 – '26 W2RO Mentoring Program (mentor)
- (Extended Producer Responsibility (EPR) and Recycling Committee
- Operations Committee
- Research & Data Committee (Committee Discharged)
- Resource Recovery Committee (Committee Discharged)

Employment Record

Technical Leader of Solid Waste Services, R.J. Burnside & Associates Limited (2005-Present)

Director, R.J. Burnside & Associates Limited (May 2008-April 2011)

Senior Project Manager / Project Engineer, R.J. Burnside & Associates Limited (1998-2004)

Project Manager / Project Engineer, CH2M Gore & Storrie Limited (1991-1998)

New York Air Brake Canada (1989-1990)

Citizenship

Canadian

Languages

English

Waste Management Feasibility Study, War Lake First Nation, Ilford, Manitoba (2024 - Ongoing)

Senior solid waste engineer responsible for assessment of waste management system components, identification of candidate sites for landfill and hazardous waste depot, field assessment of preferred sites, and conceptual design of preferred system. War Lake First Nation is serviced by rail and winter road, complicating waste export assessments.

Black River Solid Waste Management Project Feasibility Study Update, Black River First Nation, O'Hanley, Manitoba (2024)

Solid Waste Engineering Lead for assessment of methods, including 30-year life cycle costs, to export waste from the community.

Landfill Closure and Waste Transfer Station Development, Sagamok Anishnawbek, Sagamok, Ontario (2023 - Ongoing)

Project Manager and engineer leading public consultation, detailed design, tendering and construction for waste transfer station site selection, design and construction, followed by design, tendering and closure construction for Sagamok's existing landfill site, plus development of operating procedures for the transfer site and post-closure care and monitoring for the landfill.

Landfill Remediation and Expansion and Waste Diversion Strategy, Sandy Lake First Nation, Sandy Lake, Ontario (2023 - 2024)

Senior Engineer for the project, assisting with conceptual design, public consultation, development of waste diversion strategy, tendering and construction for Sandy Lake's landfill. Sandy Lake is accessible by air or ice road, making waste diversion more difficult.

Kingston Transfer Station and MRF Amendment, Environmental 360 Solutions Ltd., City of Kingston, Ontario (2022 - 2025)

Project Manager and engineer leading the planning and Environmental Compliance Approval amendment application to:

- Expand E360S's Kingston Waste Transfer Facility to sort and recover mixed waste for diversion.
- Add a new, separate Material Recovery Facility at the property to process curbside collected BlueBox recyclables.
- Control surface water at the property and obtain an OWRA approval.
- Consider Traffic Impacts within and external to the Site.

Waste Transfer Station & Landfill Site Closure Designs & Construction, Wahta Mohawks (2022 - 2025)

QA / QC Review Coordinator & Senior Advisor for development and evaluation of options, detailed designs, phasing, construction, operations, and monitoring. Construction closed existing landfill and built the waste transfer station.

Elma Landfill Site, Employee Training and Operations Manual, Municipality of North Perth, Ontario (2023 and 2009)

Project Manager for completion of comprehensive manual detailing operation of the Elma landfill site, including waste receipts, public drop-off area, hazardous waste depot, composting facility, landfilling area, and ancillary facilities. Details of safety and environmental management procedures including site's Environmental Compliance Approvals, regulations, and municipal standards. Initial preparation in 2009 and fully revised in 2023 to address updated ECA requirements.

Site Design, Capacity and Operations, Town of Perth, Ontario (2010 - 2013, 2015 - 2020, 2021)

Project Manager for EPA Approvals and operations monitoring. Determined historic in-situ waste and theoretical site capacity. Co-developed strategy, costing and schedules, then negotiated MOE (now MECP) interim operation and expansion action-plan. Developed Interim D&O Plan (May 2013), negotiated Emergency ECA with Ministry (received June 2013) and prepared Staff Training Manual (July 2013). Have led subsequent annual efforts to extend the Emergency ECA allowing continued operations while completing Environmental Screening Assessment (see below) and ECA approval for expanded capacity. Burnside assumed annual monitoring responsibility in 2016 (ongoing). Negotiated final ECA (December 2020) which included transitional operations and landfill expansion area (100,000 m^3 / 15+ years capacity). Sought amended ECA (August 2021) for revised construction phasing and use of geosynthetic clay liner in place of compacted clay. Assisted Town with construction (by Town forces), completed November 2021.

Environmental Review, Walpole Island First Nation, Ontario (2019 - 2025)

Conducted environmental peer review on sites within traditional lands where there was concern about environmental impacts to local and regional environment. Identified issues considered significant to First Nations. Ensured that Native claims were considered and that the landfill expansion, operation, and monitoring considered traditional lands. Projects included:

- **Clean Harbours Lambton Facility, Corunna, Ontario**
  - Slope Failure Review
  - Environmental Assessment for Expanded Capacity
  - Annual Monitoring Reports (Annually)
- **Waste Connections of Canada, Ridge Landfill, Blenheim, Ontario**
  - Landfill Expansion Environmental Assessment (2020 - 2022)
  - Rate of Fill, Environmental Assessment Screening (2023 - 2024)
- **Waste Management Canada, Twin Creeks Landfill, Alvinston, Ontario**
  - Quarterly and Annual Monitoring Reports (annually)
  - Renewable Natural Gas Environmental Assessment and Environmental Protection Act Application
  - Landfill Optimization Project (Environmental Assessment for expansion)
- **Walker Environmental Southwestern Landfill Environmental Assessment, Township of Zorra, Ontario**

Landfill Closure and Post Closure Care Assessments, Multiple Clients / Locations (Annually, 2004 - Present)

Engineer responsible for landfill closure and post closure care estimates in accordance with Canadian Institute of Chartered Accountants PS3270 and PS3280. Created costing / analysis model, then utilized this tool for nine sites. Project Manager for five of these sites, including updates completed for sites, and completion of additional site estimates in subsequent years. The model is used annually by Burnside staff to conduct assessments at multiple sites. Have transitioned PM and estimate development efforts to staff, providing QA / QC and P.Eng. seal for reports since circa 2015.

Landfill Operations Training

Landfill and Waste Transfer Station Operations Training

Developed and presented material regarding site operational requirements and considerations, site ECA's, regulations and guidelines, Best Management Practices, common concerns and contingencies, and site-specific needs. Specific emphasis on procedures for scalehouse, public drop-off, hazardous waste depot, tipping face, compost pad, etc. and facility infrastructure component (i.e., monitoring wells, surface water management system). In some cases, the material was discussed as a group during a site tour. Overall, the training aimed to minimize environmental liabilities, maximize environmental and economic efficiencies, and address common nuisance issues:

- Municipality of North Perth, Elma Landfill (June 2023 and 2011)
- Municipality of Marmora and Lake (March 2023)
- Municipality of Morris-Turnberry, Morris Landfill (November 2022 and November 2011)
- Township of North Huron, Wingham Landfill (October 2024 and November 2020)
- Township of South Perth, Blanshard Landfill (August 2017)
- Town of St. Marys, St. Marys Landfill (July 2013) [QA / QC of material presented by others]
- Scaletta Group Ltd., Waste Processing and Transfer Station (April 2011)

Ontario Waste Management Association, "Small Landfills" – Two Session Virtual Workshop (Oct. 2020)

Prepared and co-presented two 2 hour webinars for the Ontario Waste Management Association. Session 1 focussed on managing small landfills including monitoring and daily operations. Session 2 discussed long-term waste management planning and operational considerations for managers and municipal councils.

Landfill Operators Training Course, Multiple Clients (Spring and Fall 2011, Spring 2014)

Project Manager for all aspects of set-up and preparation of Burnside's Landfill Operators Training Course. Provided training to participants from municipalities across Ontario. This two-day course was updated from Burnside's 2009 course. May session held at Acute Environmental & Safety Services Inc. training facility, Waterloo, Ontario. November session held at Nottawasaga Inn Resort, Alliston, Ontario. Co-Presenter for Spring 2014 course, held at Burnside's Conference Centre in Mississauga ON. Participated in the following additional Burnside Landfill Operator Training Courses:

- Nottawasaga Inn Resort, Alliston, Ontario (2009) – Project Manager / Presenter.
- Hockley Highlands Resort, Town of Mono, Ontario (2007) – Project Engineer / Presenter.
- Hockley Highlands Resort, Town of Mono, Ontario (2004) – Project Engineer / Presenter.
- Council Chambers, Township of Amaranth, Ontario (2000) – Project Engineer / Presenter.

Landfill Staff Training Course for the Sanitation Service Authority of Barbados (2007)

Project Engineer responsible for development and presentation of landfill operators training course, including classroom and in-the-field training sessions. Program specifically developed to consider existing issues in Barbados and changes to the waste management system when the National Sanitary Landfill Site opens. All Authority staff that work at the existing landfills, from security and labourers, through to equipment operators and site management, took part in the training course.

Landfill Site Design and Operational Training, Organization of Eastern Caribbean States, Castries, St. Lucia (2003)

Project Engineer responsible for development and presentation of site design and operational training program, developed for the Organization of Eastern Caribbean States.

Site Compliance Monitoring

Annual Monitoring Program, Town of Perth Landfill Site (2016 - Ongoing)

Project Manager for annual monitoring and reporting on operations and environmental compliance for the Perth Landfill Site, 2016 through 2022. Sr. Solid Waste Engineer for the 2023 through 2026 (inclusive) monitoring program. Prepared landfill liability estimates under PSAB PS3270 (through 2022) and PS3280 (ongoing).

Landfill Annual Monitoring Reports, Multiple Clients (Annually, 1998 - Present)

Project Manager, Project Engineer and / or Senior Reviewer for ECA required annual monitoring and operations reporting for 15 to 20 landfill sites (varies by year). Prepared landfill liability estimates per PSAB PS3270 (through 2021/22) and PS3280 (ongoing) requirements.

Waste Transfer Facility, Annual Monitoring Report

- Medulla Waste & Recycling (Nugget) Inc., Nugget Ave. Transfer Station (2019)
- Scaletta Group Ltd., Waste Processing and Transfer Station (2011 - 2016)
- Material Recovery Centre Inc., Oakville, Ontario (2008 - 2012)

Project Engineer assisting with completion of required annual monitoring reports.

ECA Conformity Peer Review, Town of Perth, Ontario (2015)

Project Manager for peer review of annual monitoring and operations report adherence to Environmental Compliance Approval (ECA) requirements.

Project Role

Technical Advisor

Education

B.A. Sc., Civil Engineering, Water Resources Option, University of Waterloo, 1992

B.E.S. (H), Environment and Resources Studies, University of Waterloo, 1988

40 Hour Health and Safety Course for Hazardous Waste Operations OHSA

Short Course: Advanced Techniques for Evaluating & Quantifying Natural Attenuation, National Groundwater Association, November 2010

Short Course: Construction Dewatering, National Groundwater Association November 2012

Professional Societies

Professional Engineers Ontario

National Groundwater Association

Employment Record

Project Engineer R.J. Burnside & Associates Limited (2000-Present)

Project Engineer, STANTEC Consulting Ltd. (formerly Terraqua Investigations Ltd.) (1996-2000)

Project Engineer, Jagger Hims Ltd. (1990-1996)

Assistant Environmental Planner, Union Gas Limited (1989)

Kim Hawkes, P.Eng., B.E.S., QP$_{ESA}$

Kim Hawkes is a Project Engineer with 36 years of hydrogeological and environmental experience. She is involved with a wide variety of hydrogeological and environmental projects ranging from Regional Groundwater Management Studies to individual Phase 1 Environmental Assessments for private real estate transactions. Her involvement covers all aspects of these projects throughout eastern Canada including remote First Nation communities.

Ms. Hawkes completed a variety of detailed hydrogeological investigations including septic loading and well interference assessments for proposed residential/commercial developments; hydrogeological impact assessments for proposed/expanding quarry and gravel pit applications. Hydrogeological assessments were also completed for proposed, existing, expanding and closed landfill sites. Her involvement ranges from proposals, project planning and management, field sampling and testing, data analysis, reporting, attendance at public meetings to technical support for Municipal staff on various issues involving peer review, litigation, and expropriation.

Ms. Hawkes has completed Phase 1, 2 and 3 level Environmental Site Assessment (ESA) studies with strict, short-term deadlines for residential, commercial/industrial and institutional properties. She oversees and plans all project aspects including drilling, sampling, reporting and the identification of remedial measures for fuel and solvent impacted properties.

Ms. Hawkes oversaw most aspects of the Regional Groundwater Management Studies for 9 municipalities within Dufferin and Wellington Counties. Her involvement included project coordination for individual studies and between study areas; information transfer and collation; reporting; presentations to council members and stakeholders; public consultation and attendance at community events; as well as planning/attending public open houses to presenting study findings and sharing information with stakeholders and consultants.

Select Relevant Experience

Project Manager, Hydrogeological Aspects, Landfill Expansion, Town of Perth, Ontario (2014-Ongoing)

The project initially involved an overview of landfill options within the Municipal boundaries to meet future waste disposal needs. The process resulted in a decision to expand the existing site, rather than develop a new one. Previous monitoring reports and contingency plans were peer reviewed for the existing Perth Landfill site followed by detailed hydrogeological investigations to further assess site conditions in the context of the expansion and provide technical support for site design. Field investigations included residential well sampling, drilling, monitoring well installation, water quality sampling and testing, landfill gas monitoring as well as rehabilitating the leachate collection system pumps to improve performance. The expansion has undergone an Environmental Screening Assessment and will proceed with detailed design under the Environmental Protection Act. Annual groundwater and surface water monitoring continues in accordance with the Environmental Compliance Approval for the site as well as correspondence with review agencies. Recommendations have been made to the MOECC to update future monitoring requirements to better suit future use of the site.

Project Manager, Hydrogeological Aspects, Landfill Site Assessments, Municipality of North Perth, Ontario (2002-Ongoing)

The project began with a detailed Geological and Hydrogeological Assessment of all three landfill sites in the municipality as input for the Waste Management

Strategic Plan to determine sustainable waste management strategies for North Perth. Field investigations included residential well sampling, drilling, monitoring well network installation, gas probe installation, water quality sampling and testing as well as landfill gas monitoring. The outcome of the Strategic Plan resulted in the closure of the Listowel Landfill site, interim closure of the Wallace landfill site, and the detailed design and construction of the Elma Landfill site. Special hydrogeological considerations were integrated into the realignment of the Hanna drain that formerly transected the Elma Landfill site. Contaminant Attenuation zone lands were secured downgradient of the Elma site to ensure a sustainable, long-term strategy for the municipality. A leachate collection system was installed at Listowel. Ongoing annual groundwater and surface water monitoring continues at all three sites in accordance with their environmental Compliance Approvals. Remedial Action Plans have also been developed as needed to assess and address groundwater, surface water impacts.

Project Manager, Annual Landfill Monitoring and On-going Consultation, Mono Landfill, Ontario (2000-Ongoing)

Project involves annual monitoring at the Town of Mono landfill site. Monitoring includes inspection of landfill site conditions, litter control, groundwater and surface water sampling to assess compliance with Reasonable Use Policy Guidelines and detailed methane gas monitoring. The monitoring well network has been upgraded on several occasions to better assess conditions near the property boundary as filling progressed. Involvement includes attendance at Municipal staff and council meetings as well as technical support to legal counsel for contaminant attenuation zone acquisition.

Peer Review, Hydrogeological Aspects, Clean Harbors Landfill Site (2020-2021)

A technical review of the Clean Harbors Environmental Services 2019 Annual Landfill Report was completed. The 2019 report (prepared for Clean Harbors Canada Inc. (CH) for their Lambton Facility) was reviewed from a hydrogeological perspective on behalf of Walpole Island First Nation (WIFN) and comments were provided.

Project Manager, Hydrogeological Aspects, Landfill Site Assessments, Municipality of West Perth, Mitchell, Ontario (2005-2013)

Detailed Geological and Hydrogeological Assessments were completed at all five landfill sites in the municipality in support of the Waste Management Strategic Plan for West Perth. Field investigations included site walk overs with the MOECC technical support team, well inventory surveys, drilling, monitoring well network installation, gas probe installation, water quality sampling, and testing as well as landfill gas monitoring. The outcome of the Strategic Plan resulted in the closure of two sites (Hibbert and Fullarton), interim closure of a third site (Logan) and the detailed design of the remaining two (Mitchell Domestic and Mitchell Industrial). Hydrogeological input was required both as part of the detailed design process and annual monitoring in compliance with site Environmental Compliance Approvals. Assessment included existing and future landfill impacts, contingency measures and remedial strategies. Remedial Action Plans were also developed as needed to assess and address groundwater, surface water impacts. Involvement included technical support for acquisition, expropriation of contaminant attenuation zones, attendance at public meetings and open houses, liaison with Ministry of the Environment staff, and nearby landowners.

Project Coordinator, Landfill Study, Timiskaming First Nation, Timiskaming, Quebec (2009-2010)

This closure design study of the Timiskaming First Nation Landfill Site delineated the extent of waste, assessed the condition of the monitoring well network, and surveyed the fill area and the immediate vicinity of the site. Soil and groundwater conditions were interpreted as well as future monitoring needs. On-site soils were evaluated as a source of fill cover material.

Project Coordinator, Landfill Siting Study, Constance Lake First Nation, Calstock, Ontario (2000-2005)

This project involved the investigation of waste management alternatives for the First Nation including off-Reserve disposal at the Fort Francis landfill site. The study also included a hydrogeological investigation of the entire First Nation land base to find a suitable location for a future landfill site. Soil and groundwater conditions were interpreted. Proximity to surface water and existing features and hydrogeological setting were taken into consideration in identifying suitable areas for further consideration.

Project Coordinator, Landfill Site Monitoring, Closure Design Study and Transfer Station Design, Curve Lake First Nation, Curve Lake, Ontario (2000-2005)

Groundwater monitoring was completed for several years at the existing landfill site to determine whether the site was having adverse impacts on groundwater resources. A more recent study was completed to close the existing landfill site and develop it as a transfer station. This study included communication with adjoining municipalities and local haulers to determine the best waste management option for the community as well as closure details and transfer station layout. The transfer station has been constructed and is currently in use.

Project Coordinator, Landfill Design Study, Weenusk First Nation, Peawanuck, Ontario (2002-2004)

This Study involved a brief assessment of waste management alternatives available to the community. Once a landfill site was determined to be the best solution, a hydrogeological assessment of the entire community, based on available mapping and field inspections, was completed to identify potential sites. The Study included a Canadian Environmental Assessment Act (CEAA) Screening Report in accordance with Environment Canada Regulations as well as an assessment of Species at Risk under the Species at Risk Act (SARA).

Hydrogeological Assessment and Annual Monitoring Program, Oro and Tosorontio Landfill Sites, County of Simcoe (1994-1996)

Managed budgets, coordinated drilling and field programs for the Hydrogeological Assessments of the Oro and Tosorontio Landfill Sites. Liaison with County staff and MOECC reviewers, field sampling, water well inventory, data compilation and analysis were completed, and detailed reports were written.

Technical Assistant, Peer Review of Interim Waste Authority Site Selection Process for Towns of Pickering and Vaughan, Ontario (1993-1995)

Oversaw drilling, sampling and testing at the Candidate Area and Candidate Site Selection phases of both projects (Pickering and Vaughan). Peer reviewed the technical data and the selection criteria to ensure that the studies were technically fair, and the selected sites were suitable.

Technical Assistant, Waste Management Master Plan Studies, Various Regions in Ontario, Ontario (1990-1993)

These projects involved a geological and hydrogeological overview of each study area to identify suitable hydrogeological environments for a landfill site. Existing, open, and closed landfill sites within each study area were assessed to determine the suitability of their use for future waste disposal. Broad areas deemed suitable for landfill development (based on available mapping, well information and air photos) were field screened to identify potential candidate landfill sites. Candidate sites were investigated in greater detail which involved drilling, testing and sampling. Involvement included field work, technical support for report preparation and public consultation.

Hydrogeology

Hydrogeological Study for a Proposed Condominium Complex, Harbour Road, Oshawa (2018-2021)

Completed a Hydrogeological Study to comply with City of Toronto Hydrological Review Guidelines. The Study assessed groundwater and surface water conditions, estimated dewatering needs, potential impacts of construction below the water table and long-term drainage to the storm sewer system. The Study involved drilling, sampling and testing monitoring wells. Automatic water level recording devices were placed in selected monitoring wells and at Montgomery Creek to assess seasonal water level changes and groundwater surface water interactions for a 1-year period.

Site Servicing Study, Dorset, Ontario, (2020-Ongoing)

A Hydrogeological Study was completed to assess potential groundwater and surface water impacts of a proposed commercial re-development project. The study involved assessing on-site soil and groundwater conditions, impacts from the existing sewage treatment system, and providing technical support for the design of a treatment system to suit future development concepts. A preliminary assessment was completed to assess groundwater resources relative to water supply requirements for the proposal.

Technical Support, Hydrogeological Component of Environmental Impact Assessments, CR90 Reconstruction, County of Simcoe, Midhurst, Ontario (2002-Ongoing)

Hydrogeological support was provided for various County road reconstruction projects including County Road 90 widening from Angus to Barrie. This project included door to door well inventory survey, documentation of preconstruction conditions, compilation of geological and hydrogeological information, water quality and/or quantity testing, assessment of potential impacts, identification of areas/wells at risk of being affected by reconstruction, and development of remedial options.

Interference Study, Moreau Parkway, Township of Tiny (2016)

A Hydrogeological Assessment was completed to determine whether the construction of a drainage ditch was increasing water levels around the foundation of a nearby home.

Hydrogeological Study for a Proposed Condominium Complex, Don Valley Hotel, Toronto (2015-2016)

Completed a Hydrogeological Study to assess potential groundwater and surface water impacts of a proposed Condominium Complex. The study involved drilling, sampling and testing monitoring wells, Automatic water level recording devices were placed in the monitoring wells to assess seasonal water level changes for a 1-year period.

Site Servicing Study, Garden Grove, City of Hamilton, Halton Region (2014-2015)

A Hydrogeological Study was completed to assess potential groundwater and surface water impacts of a proposed commercial development to be re-zoned. The Study involved nitrate loading calculations, identifying potential sources of contamination, assessing the theoretical capacity of existing wells relative to water supply requirements to the proposal.

Peer Review and Technical Support for Hydrogeological Aspects of Development Applications for Township of King (2012-Ongoing)

Provide peer review and support for hydrogeological aspects of various land development applications including residential and commercial applications. Most applicants require zoning changes and are within the Oak Ridge Moraine Conservation Plan jurisdiction or Municipal Wellhead Protection Areas. Some applications also incorporate Environment Site Assessments for soil and groundwater impacts associated with historical commercial/industrial land use requiring a Ministry of Environment and Climate Change Record of Site Condition.

Peer Review and Technical Support for Hydrogeological Aspects of Development Applications for Town of Whitchurch-Stouffville (2012-ongoing)

Provide peer review and support for hydrogeological aspects of various land development applications including residential and commercial applications. Most applicants require zoning changes; some are within the Oak Ridge Moraine Conservation Plan jurisdiction or Municipal Wellhead Protection Areas. Some applications also incorporate Environment Site Assessments for soil and groundwater impacts associated with historical commercial/industrial land use requiring a Ministry of Environment and Climate Change Record of Site Condition.

Project Coordinator, Groundwater Management Study, Town of Orangeville, Ontario (2000-2002)

The project included regional groundwater and subsurface mapping, aquifer vulnerability mapping, groundwater modeling and policy review regarding groundwater management options, identification of potential sources of contamination and delineating municipal well capture zones. Involvement included coordination of field activities, data collation, information transfer between consultants and study teams for adjoining municipalities, reporting and attendance at public open houses and presentations to municipal staff and council. (Similar studies were also completed for eight other Groundwater Management Studies (2000-2002): Town of Minto, Township of Wellington North, Town of Shelburne, Township of East Luther Grand Valley, Township of Amaranth, Township of Mulmur, Town of Mono and Township of East Garafraxa).

Environmental Site Assessment

Technical Support and Peer Review, Environmental Site Assessment of Former Orchard Lands, Town of Newmarket, Ontario (2008-2018)

Former orchard lands were evaluated to determine impacts from their historical use of lead arsenate pesticides. Environmental Site Assessment studies including extensive soil and water sampling, drilling, and in-situ testing were completed in support of the Site Specific Risk Assessment, to determine the risks associated with continued recreational and residential use of these lands. Involvement included project coordination, data assessment and correspondence with Risk Assessment specialists, peer review and technical support for legal counsel.

Technical Support and Peer Review, Environmental Site Assessment, Cooper Site, City of Stratford, Ontario (Since 2008-2010)

Phase 1 and Phase 2 ESA investigations were completed, as well as remedial plans for a former locomotive manufacturing facility located in downtown Stratford, Ontario. Impacts were assessed from various sources including the manufacturing processes, former subsurface fuel tanks, fuelling areas, placement of contaminated soil fill into subsurface conduits and chambers, and asbestos containing materials. The work proceeded in stages as portions of the site were developed. Involvement included technical support for legal counsel and peer review.

Project Coordinator, Phase 1 Environmental Site Assessment Collingwood Airport Terminal, Crossflow Aero Corp., Collingwood, Ontario (2005)

The environmental site investigation required an historical search of public and private databases, aerial photograph review, field inspection, identification of potential on-site and off-site sources of contamination, soil remediation and testing, and reporting in preparation for a property transfer.

Project Role

Monitoring and Reporting Lead

Education

Bachelor of Science, Geology, University of the West Indies, Jamaica, 2001

Master of Science, Natural Resources and Environmental Management, University of the West Indies, Barbados, 2009

Continuing Education

MECP Risk Management Official Certification (2024)

Occupational Health and Safety Certificate (2015)

Supervisory Management Certificate (2014)

Employment Record

Environmental Scientist, R.J. Burnside & Associates Limited (2024-Present)

Project Coordinator, Waste and Diversion, Sustainable Waste Management, York Region (2019-2024)

Program Support Coordinator, Environmental Monitoring and Enforcement, York Region (2018-2019)

Senior Environmental Specialist, J. Wray and Nephew Limited, Campari Group (2016-2018)

Hydrogeologist, Water Resources Authority, Jamaica (Jamaica's Hydrologic Agency) (2001-2016)

Anika Cole, M.Sc.

Anika is a P.Geo.-eligible Environmental Scientist with 25 years' experience in water resources and waste management. She has completed training with the MECP for the role of RMO/RMI and works as the RMI/RMO for multiple municipalities. Anika has extensive experience in groundwater management, source water protection, environmental monitoring, landfill monitoring & reporting and project coordination. Anika's current responsibilities include several aspects of project management, including proposal preparation; fieldwork coordination and conducting field work. Anika's recent projects have focused on hydrogeologic studies for land development applications which include hydrogeological characterization, assessment of groundwater/surface water interactions, detailed groundwater balance calculations, assessment of development impacts to the groundwater regime, and the evaluation of infiltration measures to enhance groundwater recharge.

Compliance Monitoring and Reporting

Environmental Compliance Review, Earlton Landfill, Township of Armstrong (ON (2025)

Assessment of the Township's Environmental Compliance Approval with the landfill's operations as the township is seeking updated data on the landfill with a focus on being compliant with legislative requirements for sustainable environmental outcomes.

Annual Monitoring Reporting, Municipality of Morris-Turnberry, ON (2025)

Complete annual monitoring report in accordance to the Ontario Ministry of the Environment 2010 Monitoring and Reporting Technical Guidelines for the Morris-Turnberry landfill.

Annual Environmental Monitoring Update, Former Grand Highland Golf Club, Mississauga, ON (2024-Present)

Preparation of annual monitoring report related to ongoing environmental monitoring activities at the former Grand Highland Golf Club which was previously a fly-ash landfill in Mississauga. Monitoring of this former landfill has been ongoing since the 1990s to ensure no impact to neighbouring lands. Site is currently owned by the City of Mississauga and project has included the review of monitoring requirements and submission of performance report to the MECP.

Wahta Mohawks Landfill Monitoring, First Nations, ON (2024-2025)

Coordinate groundwater, surface water and landfill gas monitoring with field staff as well as training of First Nations staff in landfill monitoring techniques. Responsible for preparing annual landfill monitoring report.

Compliance Monitoring, York Region, ON (2022–2024)

Worked with Contract Engineers to ensure waste depots, material recovery facility and energy from waste facility are compliant with their respective ECA conditions. Prepared Council report for ECA amendments as required.

Environmental Monitoring for the Sewer Use Bylaw, York Region, ON (2018–2019)

Optimized the Sewer Use Bylaw compliance and enforcement process by synthesizing extensive datasets of water quality results to identify non-compliant permittees for a team of six Bylaw Officers in accordance with the Municipal Act. Liaised with 50+ Permittees under Self-Monitoring, Compliance, Surcharge, and

Hauled Wastewater Programs to ensure understanding of approval conditions, and compliance with reporting/documentation requirements.

Phase 1 Environmental Site Assessment, York Region, ON (2018–2019)

Provided technical input to Phase I Environmental Site Assessment and information requests for risk-based monitoring and dewatering programs; processed requests for risk-based monitoring and applications for dewatering permits.

Water Quality Monitoring Network, Appleton and Holland Estates, Jamaica (2016)

Designed water quality monitoring network including monitoring wells and upstream and downstream monitoring points on surface water systems around the sugar factory and distillery. Implemented waste management and spill prevention strategies to mitigate against contamination.

ISO and Regulatory Compliance Monitoring and Reporting, Appleton and Holland Estates, Jamaica (2016–2018)

Developed and implemented Closure Plans, Compliance Plans and Waste Management Plans in collaboration with a multi-faceted team of Engineers as required by regulatory agencies to support environmental permit applications and meet ISO14001 objectives. Prepared quarterly reports for submission to regulatory agencies.

Municipal Representation

Risk Management Official, Amaranth and East Garafraxa, ON (2024-Present)

Provide routine advice and participate in review of development applications for implementation of source protection policies. Represent municipalities at Source Protection Implementation Working Group for Risk Management Officials.

Waste and Diversion Stakeholder Coordination, ON (2019-2024)

Fosters positive relationships with local municipalities to implement customized waste related programs and solutions based on identified demographics of each constituency to improve regional diversion targets.

Consistently guaranteed 100% timely response to an average of 40 escalated waste related inquiries from residents per month; collaborated with the Commissioner's Office on drafting responses to political inquiries; peer reviews teammates responses to inquiries and supported training of customer service representatives through solid waste presentations

Source Water Protection

Source Water Protection Policy Matrix, Southwest Georgetown, Halton Region (2025)

Assessed source water protection policies and developed a source water protection policy matrix for the proposed Southwest Georgetown Development as requested by Halton Region

Source Water Impact Assessment and Mitigation Plan (SWIAMP) for a proposed development at 271 Holladay Drive, Aurora (2025)

Prepared a SWIAMP report to meet the requirements of policy Section 7.3.39 of the Regional Municipality of York (York Region) Official Plan. Potential risks to the municipal water supply from the development were identified and recommendations for mitigating negative effects provided.

Contamination Investigation Riverton Waste Disposal Site, Jamaica (2013–2016)

Investigate extent of landfill impact on groundwater and surface water and assisted with developing a monitoring network.

Water Resources Characterization for the Karstic Basin, Jamaica (2013–2016)

Conducted environmental monitoring including ground and surface water quality sampling, dye tracing and isotope hydrology techniques in a karstic setting in collaboration with Western Kentucky University to determine contaminant pathways, hydrological divides and sub watershed boundaries for the Dry Harbour Mountain Basin, Jamaica.

Aquifer Vulnerability Mapping, Issues Evaluation and Threats Assessment Study, Jamaica (2006–2016)

Conducted environmental monitoring to predict and minimize potential threat to resources, including the design of monitoring wells, measuring groundwater levels and streamflow, collecting samples for water quality analysis. Project delineated contaminant plumes around residential and commercial developments and landfills. Vulnerability scores and hazard scores were developed using the DRASTIC Methodology. Studies were included as a part of the National Water Resources Master Plan Update.

Characterization of Groundwater around Bauxite Plants, Jamaica (2006–2010)

Field mapping, water sample collection and interpretation of water quality results to fingerprint the source of contamination of groundwater in karstic setting in the vicinity of Bauxite/Alumina Plants in collaboration with the International Atomic Energy Agency (IAEA). Completed dye tracing exercise and sampled groundwater for isotope analysis towards tracing contaminant pathway.

Saltwater Intrusion Assessment of Vulnerable Aquifer Systems, Jamaica, Barbados and Antigua (2002–2006)

Technical Support in project development and geophysical fieldwork in Jamaica, Barbados and Antigua for the evaluation of saltwater intrusion of coastal, karst aquifers. Assisted in field data collection for the geophysical component of the project contributing to a conceptual characterization of the groundwater systems on all three islands. Work included collection of resistivity data and assisting in technology transfer aspects through interactions and participation with Jamaica, Antigua and Barbados government employees as well as consultant engineers and geophysicists.

Well Rehabilitation and Water Supply Network

Appleton and Holland Estates Well Rehabilitation Program, Jamaica (2018)

Evaluated the status of two wells on the Appleton Estates and provided recommendations for well rehabilitation and infrastructure upgrades. Analyses included well inspection videos and constant rate tests. Project resulted in recommendations for sustainable pump rates in support of water taking licenses.

Assessments of Water Sources for Municipal Water supply Networks, Jamaica (2001–2016)

Coordinated the construction, yield testing and installation of over fifteen production wells, oversaw pumping tests to determine optimal yield, guided well rehabilitation programs and conducted water quality assessment as per regulatory standards. Guided the improvement of over ten community based/locally managed surface water supply systems. Developed source water protection strategies and water safety plans for municipal water supply systems.

Hydrogeological Studies

Subwatershed Impact Study (SIS) for the Pinder Lands, Milton, ON (2025)

Completed the hydrogeological assessment component as a part of a multidisciplinary study for the properties located at 52 Peru Road and 20 Tremaine Road

Hydrogeological Impact Assessment, D-5-5 Guidelines, Joseph Wagler Inc. Development, Gorrie, ON (2025)

Completed a groundwater supply report for this site that was slated to be served by private wells. Assessed pumping test data for test wells and reviewed any mutual interference on test wells and nearby monitored private wells. Provided recommendations on water supply development potential.

Hydrogeological Assessment, Parcel 7 West Jane Inc., Block 27, ON (2025)

Completed a hydrogeological study in support of the Draft Plan application for the property located at 10995 Jane Street in the City of Vaughan. The hydrogeological assessment characterized the geological and hydrogeological conditions, identified potential development impacts on local surface water and groundwater resources, and recommend mitigation measures to address potential impacts.

Hydrogeological Assessment, 1501 19th Avenue, Richmond Hill, ON (2024)

Completed a Hydrogeological Study to comply with City of Richmond Hill Hydrogeological Review Guidelines for residential development. The Study assessed groundwater conditions as well as groundwater/surface water interactions, detailed pre- and post-development water balance calculations and included recommendations for low impact development measures.

Hydrogeological Assessment, 12460 Leslie Street, Richmond Hill, ON (2024)

Completed a Hydrogeological Study to comply with City of Richmond Hill Hydrogeological Review Guidelines for a property to be developed as a commercial complex with underground parking. The Study assessed groundwater conditions, estimated dewatering requirements, potential impacts of construction below the water table and long-term drainage to the storm sewer system. Completed detailed pre- and post-development water balance calculations.

Powerline Road East Block Plan Hydrogeological Study, Brantford, ON (2024-Present)

Burnside undertook the hydrogeological component of the Block Plan study for new development lands in Brantford. As part of the study Anika coordinated the completion of infiltration tests at 9 locations and completed analyses to determine infiltration rates of the soils at the proposed stormwater management ponds and other infiltration LID features.

Powerline Road Central Block Plan Hydrogeological Study, Brantford, ON (2024-Present)

Burnside undertook the hydrogeological component of the Block Plan study for new development lands in Brantford. Anika coordinated infiltration testing and analysis at 31 locations to determine infiltration rates of the soils at the proposed stormwater management ponds and other infiltration LID features.

Hydrogeological Site Characterization, Oakville Phase 3 Lands North Oakville, ON (2024-Present)

Supporting the hydrogeological component of required Environmental Implementation Reports for proposed development lands in North Oakville. Project includes the completion of ground and surface water monitoring to assist the hydrogeological characterization of sites and prediction of potential development impacts. Work completed includes coordination of monitoring well installation drilling activities, installation of monitoring wells, groundwater and surface water quality sampling. Responsible for providing monitoring reports to landowners. Anika participates in monthly study team meetings and provides updates on hydrogeology study progress; Anika also coordinates hydrogeology interactions with other study disciplines and has assessed data for input into a multidisciplinary team report.

Hewitt's Creek Well Interference Assessment and ongoing monitoring, Barrie, ON (2024-Present)

Project involves the long-term monitoring of shallow domestic wells in a new development area in the City of Barrie. Using monitoring data Burnside responds to well interference complaints and provides analyses and interpretations to the city and MECP on the hydrogeological conditions associated with interference complaints. As part of this team Anika has reviewed well surveys, coordinated field staff for groundwater monitoring, completed interference assessment and climate data review.

Orangeville Tier Three Model Update and PTTW Application Project, Town of Orangeville, ON (2024-Present)

Ongoing support for project to revise and update Tier 3 groundwater model for the Town of Orangeville. Study is using various planning and development options to evaluate the ability of the Town to meet its projected water demand from existing and planned supply sources, while allowing for existing environmental uses. Contributions have included review of existing data and reports and provision of hydrographs and data in support of model calibration. Anika has worked to coordinate the provision of data to the modeling team based on internal data searches and interactions with the internal Burnside team.

Salt Management Plans

Proposed Commercial Development at 250 C Line, Orangeville (2025)

Residential Development at Parkview Manor, Floradale, ON (2025)

Sarah Properties, Phase 5, Orangeville (2025)

27 Robb Boulevard, Orangeville

Peer Reviews

Peer review of water balance assessment for a proposed property at 7870 Highway 7, Guelph Eramosa (2025)

Peer Review on behalf of Norfolk County for a hydrogeological impact study as per D-5-5 Guidelines for the proposed Devos Subdivision in Langton (2025)

Peer Review on behalf of County of Huron for a nitrate impact study as per D-5-5 Guidelines for the proposed Cranbrook Estates, Cranbrook, ON (2025)

Private Servicing options for the Deltini Commercial Subdivision, Mulmur, ON (2024)

Groundwater Impacts of proposed asphalt plant in Clearview, ON (2024)

Lafarge Tier III Permit to Take Water (PTTW) Amendment, Guelph-Eramosa, ON (2024)

Glenchristie Quarry PTTW and Environmental Compliance Approval Applications, Guelph-Eramosa, ON (2024)

National Environment and Planning Agency Technical Review Committee, Jamaica (2006–2016)

Project Role

Field Coordination Support

Education

Environmental Engineering Technician, Conestoga College, 2001

B.E.S., Bachelor of Environmental Studies, Geography, University of Waterloo, 1998

Continuing Education

OSHA - Health and Safety at Hazardous Waste Sites, 40 hour course (April 2001)

Source Water Protection - Risk Management Official and Risk Management Inspector

Employment Record

Environmental Technologist, R.J. Burnside & Associates Limited (2001-Present)

Volunteering

Waterloo Wellington Children's Groundwater Festival (2018)

Sean Quinlan, C.Tech., B.E.S., RMO

Sean Quinlan is an environmental technologist with 25 years of experience working on issues pertaining to water resource management, solid waste management and water quality impact assessment. Through his work, Sean has developed an eye for detail and has worked extensively with the compilation and review of hydrogeological data. His water resource management work has included water quality review and reporting, water quality sampling of surface water and groundwater, water quality assessment, stream flow monitoring, and groundwater exploration and development. Sean's work has included landfill sampling, analysis of waste systems, literature reviews, visual audits, landfill drilling and report preparation. Sean has also assisted in coordination and completion of pumping tests, preparing permit applications, and floodline impact studies. Sean has successfully completed the MECP's Source Water Protection course for Risk Management Officials and Risk Management Inspectors.

Select Relevant Experience

North Perth Landfills (Elma, Listowel and Wallace), Municipality of North Perth (2002-Present)

Burnside has provided landfill services to the Municipality of North Perth for one open landfill site (Elma) and two closed landfill sites (Listowel and Wallace) for over 20 years beginning with a Waste Management Strategic Plan for sustainable waste management strategies for North Perth. Sean, in his capacity as our Field Coordinator, has been tasked with securing yearly equipment quotes, organizing bottle deliveries, and crafting an internal work schedule. Additionally, Sean has conducted multiple rounds of onsite monitoring at the three sites and has contributed to data compilation and review efforts.

Mono Annual Landfill Monitoring and Consultation, Town of Mono (2001-Present)

Burnside has been providing annual landfill monitoring and Consultation Services at the Town of Mono landfill site. Sean has functioned as our Field Coordinator, entrusted with the responsibility of obtaining annual equipment quotations, arranging the delivery of bottles, and devising an internal work schedule. Moreover, Sean has conducted numerous rounds of onsite monitoring at the Mono landfill.

Perth Solid Waste Solutions, Town of Perth (2008-Present)

Burnside has been providing technical assistance allowing the Town to successfully negotiate a palatable solution for both short and long terms disposal with the MECP and allowed the Town to expand and continue operating their existing landfill site in an environmentally responsible manner. Sean has effectively carried out the duties of our Field Coordinator, overseeing the procurement of annual equipment quotes and setting up an internal work schedule. Additionally, Sean has contributed to onsite monitoring at the Town of Perth landfill site.

Landfill Monitoring Programs, Former Kitchener Landfill, Listowel, Elma, Wallace, East Luther, and Amaranth Landfills, Ontario (2002-Ongoing)

Sean is responsible for the annual monitoring of several landfills including coordination of sampling at over 150 wells. This work includes obtaining annual laboratory and equipment quotes, arranging for the delivery of bottles, equipment and consumables, and developing an internal work schedule. Sean has helped in the preparation of the annual monitoring reports for the Landfills.

The reports included a review of site geology and hydrogeology including the analysis of laboratory water quality results and the interpretation of groundwater elevations.

Cambridge Landfill Monitoring Program, Region of Waterloo, Ontario (2009-2012)

Sean was responsible for the quarterly monitoring of the Cambridge landfill accounting for over 130 sampling locations. This work included obtaining annual equipment quotes, arranging for the delivery of bottles, equipment and consumables and developing an internal work schedule. Sean was also the key contact person to ensure site specific work plans as well as Burnside's Standard Operating Procedures are followed. Water level and water quality data were subjected to comprehensive scrutiny, meticulous tabulation, and were subsequently delivered to the Region, with a strong emphasis on the stringent quality control protocols.

Town of North Perth Waste Management System Plan, North Perth, Ontario (2004-2006)

Accountable for waste characterization and the projection of waste quantities by employing data obtained from analogous prior studies. Developed alternative collection and disposal system components, and evaluation of component combinations relative to providing a consistent level of service across the Town's rural and urban populations, minimizing costs, fully utilizing existing facilities and maximizing environmental benefits and system sustainability.

Strategic Planning for Solid Waste Management, Township of King, Ontario (2004-2005)

In charge of waste characterization and estimating waste quantities by drawing upon data obtained from previous studies of similar nature and scale. Development of alternative waste collection system options, and comparison of these options. The first step of the project was intended to allow the Township of King to decide if they wish to participate in the Region of York's expanded blue box and source separated organics waste diversion programs. The second step was designed to evaluate collection system options for participation should they decide to proceed. Developed relative costs for system comparisons and evaluated system advantages relative to level of service for residents and system sustainability.

Strategic Planning Study for Solid Waste Management, Township of Southgate, Ontario (2002)

Assisted in preparing Strategic Planning Study for Solid Waste Management in the Township of Southgate. Sean was responsible for; conducting an extensive literature review, contacting waste equipment dealers to obtain current cost information, contacting waste organizations for information on what services they provide and at what cost, conducting a series of visual waste audits throughout the Township to ensure initial predicted waste generation data was accurate, analyzing different waste systems with respect to overall system costs, and also responsible for helping to prepare the final report.

Water Resource Management

Groundwater Monitoring Program, Region of Waterloo, Ontario (2004-Ongoing)

Sean has worked with the Region of Waterloo monitoring program since 2004. Sean's responsibilities include handling water level data from more than 700 locations, encompassing both monthly manual and hourly electronic data. Sean uses the water level data while creating PTTW summary reports and semi-annual seasonal reports for the Region of Waterloo. Currently, Sean assists with the coordination of the water quality program and has been responsible for the development (purging) and sampling of over 200 wells for water quality parameters including basic chemistry, 1,4-Dioxane, VOC's, and pesticides. The sampling program includes recording of field parameters using purpose formatted tablets to record status as well as to take photographs. Sean is responsible for the drafting of semi-annual water quality data reports combined with annual detailed water quality assessments.

Road Salt Monitoring, Kitchener, Ontario (2004-Ongoing)

Road salt contamination is an issue within the Region of Waterloo and Burnside provides services for the monitoring of this parameter at 33 wells. As part of this program, Sean is responsible for the development (purging) and sampling of monitoring wells on a semiannual basis for water quality parameters associated with road salting. Sean has also coordinated and supervised the installation of two replacement salt wells for the Region of Waterloo during 2007.

Wilmot Groundwater Monitoring, Wilmot, Ontario (2009-Ongoing)

Sean supervises quarterly groundwater sampling for nitrate, chloride, and sodium in 16 monitoring wells. Additionally, Sean is responsible for drafting the annual monitoring report, which assesses groundwater usage, water levels, and water quality.

Greenbrook Water Quality Sampling, Kitchener, Ontario (2004-Ongoing)

Sean, in his role as the Project Manager, oversees the biannual collection of water samples from more than 83 wells in the Greenbrook region of Kitchener to analyze for 1,4-Dioxane, and VOCs. The extracted purge water is managed and properly

disposed of by a licensed wastewater handler, and comprehensive water quality reports are generated after each round of sampling.

Cambridge Well Optimization, Region of Waterloo, Ontario (2007-2012)

Detailed assessment of existing wells and design of new wells in order to maximize the available water supply from existing municipal production well sites. Worked with contractor to oversee the installation and testing of 15 new wells that were drilled in a combination of overburden and bedrock aquifers. Supervised fieldwork including drilling, geophysical logging, and specialized downhole diagnostics to better understand the municipal bedrock wells.

Groundwater Management Study, Barbados Water Authority, Barbados (2008-2009)

As part of the development of new legislation regarding groundwater supply and management for the island of Barbados, onsite responsibilities included coordination and completion of groundwater sampling for water supply wells across the island.

Source Protection Studies

Bethel Road Threats Assessment, Brant County, Ontario (2014-2015)

Completed windshield survey and initial threats inventory for the Bethel Road WHPA in Brant County.

Data Analysis

Groundwater Level Monitoring Program, Region of Waterloo, Ontario (2004-Ongoing)

As part of the Burnside team working with the Region of Waterloo since 2004, Sean processes data from data loggers for compilation along with manual data. Sean is responsible for data review to ensure that data has been recorded accurately and conducts quality checks as well as trend analysis on all data. Sean ensures that all data is available for project use and reporting by performing quality checks of the database.

Groundwater Quality Monitoring Program, Region of Waterloo, Ontario (2004-Ongoing)

Since 2004, Sean has been actively engaged in the organization, review, and analysis of laboratory water quality data. His role involves conducting thorough statistical analyses to pinpoint trends and anomalies within the data. Additionally, Sean is responsible for performing quality assessments on groundwater quality data, rectifying any issues, and ensuring its submission to the Region of Waterloo in the approved electronic data deliverable format.

Annual Municipal Well Summary and Monitoring Report, Orangeville, Ontario (2008-2015)

Burnside was contracted to perform a review of the Annual well summary and monitoring report for the Town of Orangeville, specifically to examine compliance with PTTW conditions and to determine whether there were environmental impacts noted. Sean worked as part of the Burnside team to review the reports and was involved with checking water level hydrographs and pumping totals for completeness. Following the review Sean also assisted with drafting a report on the review findings that was provided to the MECP.

Cardinal Woods PTTW Renewal and Updates, Town of Mono, Ontario (2017-2021)

Working with hydrogeologists and engineers, Sean assisted with the documentation of water level trends at the Cardinal Woods wellfield and helped to evaluate the potential for impact of pumping at a nearby creek. Data reviewed was compiled and incorporated into applications for renewal and subsequent updates to the PTTW for the wells. Data analysis included review of datalogger data, SCADA data from the operators and streamflow and precipitation data.

Golf course PTTW monitoring, Elmira Golf Club, Brookfield golf and Country Club, Hidden Lake Golf Club, Century Pines Golf Club, Carlisle Golf Club and Rebel Creek Golf Club (2012-Ongoing)

Sean's duties encompass gathering and processing water level data across multiple golf clubs. Sean uses this data, combined with stream flow information, pumping records, and climate data, for PTTW monitoring and renewal processes.

Project Role

Field Technician

Education

Bachelor of Environmental Studies, University of Waterloo, 2012

Professional Societies

Eco Canada – Ept (started 2012)

Employment Record

Hydrogeology Technician, R.J. Burnside & Associates Limited (2012-Present)

Matt Valeriote, B.E.S.

Matt Valeriote is an Environmental Technologist with 14 years of experience working in the Hydrogeology group at Burnside. His work has included stream flow monitoring, groundwater monitoring, water quality sampling of surface water and groundwater, and water quality assessment. Some of Matt's other work includes landfill sampling, report preparation and overseeing borehole drilling for the installation of monitoring wells and the characterization of those soils.

Project Experience

Region of Waterloo Groundwater Monitoring Program, Region of Waterloo, ON (2012-Present)

There are a variety of tasks Matt completes on a monthly, seasonal and annual basis for this project. The monthly tasks include the collection of water levels from hundreds of monitoring wells throughout the Region and the downloading and programming of data loggers. The seasonal duties involve stream flow monitoring and water quality sampling and Matt's annual task for the project is to conduct an inspection summary of productions wells and wells on production sites. Also, for the water quality sampling Matt has the task of organizing all the field books and some of the equipment needed for the job. In 2019, Matt completed a round of PFAS sampling.

Region of Durham Groundwater Monitoring Program, Region of Durham, ON (2012-Present)

Field support for annual water quality/quantity monitoring program which involves monthly water level collection from over 115 wells and water quality sampling of 50 wells. Annual reports are submitted to the MECP to ensure compliance with the PTTWs for each well field.

Rotary Park Annual Monitoring Program, Town of Orangeville, ON (2022 – Ongoing)

Assists in the annual groundwater sampling program at Rotary Park in Orangeville. The program includes the collection of groundwater levels, groundwater quality samples, and surface water quality samples from on-site monitoring locations.

Former Kitchener Landfill Water Quality Sampling, Kitchener, ON (2012-Present)

Matt has conducted the semi-annual sampling of the former Kitchener Landfill in the Greenbrook area of Kitchener for 1, 4-Dioxane and VOC's. The purge water is contained and disposed of by a licensed wastewater handler. Matt is responsible for all onsite activities.

Landfill Sampling, Ontario Municipalities and Counties (Listowel, Elma, Wallace, Amaranth, East Luther, Perth, etc.) (2012-Present)

Matt has been involved with multiple landfill projects where the Phase II sampling of surface water and groundwater is conducted. Most, if not all, of these sites included the collection of water levels (and other parameters like temperature and pH), water samples (ground and surface), and stream flow data. Also, for some of these projects Matt has had the responsibility of organizing all the field notes and done some report preparation.

Phase I and Phase II ESAs for Lubicon Lake Band (2015/2016)

Phase I and Phase II ESAs of the Lubicon Lake Band proposed Settlement Lands were conducted to support the Canada Lands acquisition process. The field investigation included soil, groundwater and surface water sampling to confirm the presence and extent of contamination and identify any significant environmental concerns. The Addition to Reserve (ATR) process requires that lands being considered for addition are assessed to determine the potential for environmental liabilities and to minimize the potential that contaminated land is transferred. The Phase I/II ESA findings will be used to make decisions on whether to acquire the proposed Settlement Lands and for land use planning.

ORB Belfountain, Property Corporation, Belfountain, ON (2014-Present)

Matt has the task of collecting monthly water levels and downloading and programming loggers from a number of wells on the ORB property. Matt has also installed loggers, conducted pump tests, and collected groundwater samples for this project.

Bonaire Highlands Subdivision, MacPherson Builders (Fergus North) Limited, Fergus, ON (2013-Present)

Matt has been involved with this project for over a year and in that time his tasks have included the collection of groundwater and surface water samples, conducting pump tests on domestic dug wells, installing and programming data loggers, and collecting water levels on a seasonal basis but also on a weekly basis for dewatering purposes.

Arclin Thunder Bay Phase II, Arclin Performances Applied, Thunder Bay, ON (2014)

Matt was only involved in the Phase II portion of this project. His task was to collect water levels (and other parameters like temperature and pH) and groundwater samples from monitoring wells around the site.

Niska Road/Bridge Reconstruction, City of Guelph, Guelph, ON (2014)

Matt played a brief role in this project, specifically in the Phase I portion of it. He was responsible for noting deer activity in a forested area adjacent to the Niska road/bridge where the site is located.

Toronto GC – Fuel Tank Removal, Toronto Golf Club, Mississauga, ON (2013)

Matt was involved with the removal of an old fuel tank at the Toronto Golf Club. For that project Matt was responsible for collecting photos of the site and the removal of the tank. He was also responsible for collecting soil samples and instrumental readings of the soil from the site, as well as collecting notes on the removal and sampling.

Lunor – Phase II ESA, Lunor Group, Elmira, ON (2013)

For this project Matt was involved only in the Phase II portion. He had the task of assisting in the drilling of boreholes for the purpose of installing groundwater monitoring wells and he was responsible for characterizing the soil from the drilling. Matt also installed drive point piezometers and data loggers at certain locations on the site.

Region of Waterloo Cambridge Landfill Monitoring Program, Region of Waterloo, ON (2012)

Matt completed regular sampling in support of the quarterly monitoring of the Cambridge landfill accounting for over 130 sampling locations. Matt adhered to Burnside's Standard Operating Procedures for the collection of all data, and ensured all samples were properly captured and delivered for analysis.

Project Role

Field Technician

Education

Honours B.Sc. Environmental Geoscience and Geomatics, University of Guelph, Guelph, ON (2020)

Employment Record

Environmental Technologist, R.J. Burnside & Associates Limited, Guelph Ontario (2021-Present)

Groundwater Technician, Groundwater Science Corp, Waterloo Ontario (2016-2021)

Emma Pentney, B.Sc.

Emma is an Environmental Technologist with R.J. Burnside & Associates Limited, with nine years of experience. She has worked on a wide range of projects from residential and land development hydrogeology studies to landfill sampling and regional water quality monitoring throughout Kitchener, Waterloo, Brampton, Caledon, Mississauga, Milton, Georgetown, North Oakville and Erin, Ontario. Previous experience in the industry has provided Emma with substantial field work experience in both the private and public sectors, particularly pertaining to hydrogeologic assessments for aggregate extraction purposes in Southern Ontario.

Public Sector Experience

Groundwater Monitoring Program, Region of Waterloo, Ontario (Ongoing)

Burnside has been collecting water quality samples from over 120 monitoring wells throughout the Region of Waterloo since 2004. Emma assists with sample collection during the seasonal sampling program.

Various Landfills, Ontario (Ongoing)

Emma assists with seasonal sample collection at the Mono, Mulmur, Elma, North Perth sites, West Perth, Town of Perth, East Luther, Amaranth, Listowel, Elma, Wallace, Cambridge, Egremont, Proton and Dundalk Landfill sites.

Greenbrook Water Quality Sampling, Kitchener, Ontario (Ongoing)

This program initially involved assessment and sampling of a number of wells in 2004 after 1,4-dioxane was detected in Greenbrook municipal wells. Emma now assists with the semi-annual sampling of 83 locations.

Hydrogeological Assessment for Station St Dam Reconstruction, Town of Erin, Hillsburgh, Ontario (2020)

Emma helped establish the hydrogeologic monitoring network with the installation of piezometers, staff gauges, loggers and surface water monitoring/ sampling locations for this project. Emma was responsible for implementing the monitoring requirements for defining baseline conditions, monitoring conditions throughout the project, and conducting post construction monitoring. This included collecting weekly groundwater level and surface water monitoring as well as bi-weekly water quality sampling.

Residential Development Experience

Hydrogeological Assessment, Mattamy, Erin, Ontario (2021)

Supervised drilling and the installation of monitoring wells and piezometers. Installed staff gauges and data loggers. Responsible for monthly monitoring of groundwater levels and surface water flow. Performed k-tests and environmental sampling.

Hydrogeological Assessment, Milton Phase 4, Milton, Ontario (2021)

Responsible for monthly monitoring of groundwater levels and surface water flow. Performed k-tests and environmental sampling.

Hydrogeological Assessment, Milton Educational Village, Milton, Ontario (2021)

Responsible for quarterly monitoring of groundwater levels. Installed piezometers, staff gauges and data loggers.

Hydrogeological Assessment and Water Balance, Sandringham East, Brampton, Ontario (2021)

Responsible for quarterly monitoring of groundwater levels and surface water flow. Emma also implemented infiltration testing and soil sampling at various depths (after excavation) and locations across the site.

Hydrogeological Assessment, Muzzo Group, Caledon, Ontario (2021)

Responsible for monthly monitoring of groundwater levels, surface water flow and wetlands. Emma also conducted soil classification, sampling and profiling at various depths and locations across the site.

Private Sector Experience

Hydrogeological Assessment for the Roszell Road Gravel Pit, Puslinch, Ontario (2016-2021)

Emma was responsible for conducting monthly monitoring of groundwater levels and temperature profiles across the site. Emma also conducted elevation surveys across the site as well as a bathymetric survey to characterize/estimate remaining resource below water.

Hydrogeological Assessment for the Schumacher Pit, South Bruce, Ontario (2019-2021)

Emma helped establish the hydrogeologic monitoring network by overseeing drilling activities, the installation of monitoring wells as well as installing piezometers, staff gauges and data loggers across the site. Emma also conducted elevation surveys and was responsible for implementing the monitoring requirements throughout the duration of the assessment, from water level monitoring to water quality sampling.

Project Role

Field Technician

Education

Master of Science in Geography, Wilfrid Laurier University, Waterloo, ON, 2023

Bachelor of Science in Environmental Sciences, University of Guelph, Guelph ON, 2018

Employment Record

Environmental Scientist, R.J. Burnside & Associates Limited (2024-Present)

Water Quality Technician, Saugeen Valley Conservation Authority (2022-2023)

Waterfront Stewardship Specialist, Town of Saugeen Shores (2019)

Jeremy Harbinson, M.Sc.

As Environmental Scientist with the Development Hydrogeology Group with R.J. Burnside & Associates Limited with five years of experience, Mr. Harbinson is a part of the field staff responsible for carrying out monitoring of groundwater and surface water, as well as data compilation and report writing for private land development projects. His role enables him to be involved in a wide range of hydrogeology projects from the development stage through to implementation across Central-Western Ontario. Jeremy is an early career environmental professional who has completed biogeochemistry research in Yellowknife, Northwest Territories where he investigated seasonal changes in arsenic cycling in a series of small lakes with different basin morphologies during ice-cover and into the ice-free seasons. During his early career, Jeremy has gained technical experience with a Conservation Authority as a Water Quality Technician where he led and implemented both the Provincial Water Quality Monitoring Network and Provincial Groundwater Monitoring Network in a large watershed. Mr. Harbinson's water quality technical expertise and wide-ranging field experience bring a versatile skillset to the Development Hydrogeology Group with R.J. Burnside & Associates Limited.

Project Experience

Public Sector

Landfill Monitoring, Municipalities in Perth and Huron County, ON (2024-Present)

Responsible for groundwater and surface water monitoring support at landfills in Huron and Perth County. Work involves the collection of water levels and field parameters, groundwater and surface water sampling, gas measurements, and stream gauging. He has also been involved in the coordination of equipment and bottle orders for these sites, as well as report preparation.

Ground Water Monitoring Program, Region of Waterloo, ON (2024-Present)

Involved in the spring and fall groundwater sampling events. Work involves the collection of water levels and field parameters, groundwater sampling and containment of contaminated water.

Watershed Report Card, Saugeen Conservation & Conservation Ontario (2023)

Lead data analysis and report writing for the 2023 Watershed Report Card, a public document outlining the state of a watershed. A five-year data review for both groundwater and surface water (rivers) across the watershed, highlighting sub watersheds showing a letter grade range from excellent to poor. A key document showcasing the state and trend of environmental health of the Saugeen Watershed informing local municipalities, residents, and provincial government.

Private Sector

Development Hydrogeology, R.J. Burnside & Associates Limited (2024-Ongoing)

Performing field monitoring and data review for groundwater wells and surface water sources for several development hydrogeology projects across the Greater Toronto Area.

Research

Contrasting seasonal cycling of arsenic in a series of subarctic shield lakes with different morphometric properties, Wilfrid Laurier University, Yellowknife, NWT (2023)

Conducted research as a masters student on the seasonal variations of arsenic in contaminated lakes from historical gold mining operations in Yellowknife, Northwest Territories. Through this research Jeremy co-organized and executed eight-months of remote field work collecting all the necessary data: water samples, sediment cores, bathymetry mapping, and zooplankton samples from five lakes during both ice-covered and open-water conditions. This project contributed important information on the winter cycling of arsenic, which will help to inform our understanding of the chemical recovery of subarctic lakes from arsenic pollution. This research is still ongoing and is a partnership between Auroa Research Institute and Wilfrid Laurier University.

Project Role

Field Technician

Education

B.Sc. (Env.), University of Guelph, Guelph, ON 2023

Professional Societies

PGO (G.I.T.)

Employment Record

Environmental Technologist, R.J. Burnside & Associates Limited (2024-Present)

Sam Gredig, B.Sc. (Env.), GIT

As an Environmental Technologist working in the Hydrogeology group at R.J. Burnside & Associates Limited with two years' experience, Sam is largely responsible for monitoring groundwater levels, collecting stream flow data, sampling surface and groundwater for laboratory analysis, and report preparation. He has also assisted in well drilling, well inspections, and pumping tests. His role enables him to be involved in projects from the collection and interpretation of field data to the reporting stage. Sam has experience completing annual groundwater monitoring programs and other various hydrogeological projects for municipalities and townships across southwestern Ontario.

Project Experience

Landfill Monitoring, Municipalities in Perth and Huron County, ON (2024-Present)

Responsible for groundwater and surface water monitoring at landfills in Huron and Perth County. Work involves the collection of water levels and field parameters, groundwater and surface water sampling, gas measurements, and stream gauging. He has also been involved in the coordination of equipment and bottle orders for these sites, as well as report preparation.

Ground Water Monitoring Program, Region of Waterloo, ON (2024-Present)

Involved in the spring and fall groundwater sampling events. Work involves the collection of water levels and field parameters, groundwater sampling and containment of contaminated water.

Former Kitchener Landfill Water Quality Sampling, Region of Waterloo, Kitchener, ON (2024-Present)

Involved in the semi-annual sampling of the former Kitchener Landfill in the Greenbrook area of Kitchener for 1, 4-Dioxane and VOC's. The purge water is contained and disposed of by a licensed wastewater handler.

Marlwood Estates, TPC Marlwood Inc., Wasaga Beach, ON (2024-Present)

Involved in the supervision of drilling for six monitoring wells at a golf course for proposed development. Work involved locating ideal sites for the proposed wells, supervising geoprobe drilling, characterizing soil samples and preparing borehole logs. Ongoing work includes monthly monitoring, sampling and k-tests.

Eramosa River Flow Reduction Quantification, Wellington Source Water Protection, Eden Mills, ON (2024-Present)

Conducted stream gauging and flow measurements for the Eramosa River to identify and quantify flow reduction.

Deergate Hydrogeological Services, Deergate Holdings Inc., Richmond Hill, ON (2024-Present)

Responsible for the management of water level, water quality, and dewatering volume data at a development site in Richmond Hill. Work involves updating databases daily and ensuring the data collected is accurate and appropriate given how the site is operating that day. Also responsible for updating hydrographs and daily pumping volume tables to be used in reports.

Hydrogeological Work Plan, Mortgage Funding, Fesserton, ON (2024)

Involved in the chlorination of three test wells at a proposed development site. Work involved chlorinating, dechlorinating and continual sampling of the well water to ensure the proper chlorine concentration was met. Also involved taking well videos to assess each of the test wells.

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix B

Corporate Details

Company Organization Chart

R. J. Burnside & Associates Limited | **Neegan Burnside Ltd.** | **Well Initiatives Ltd.**

Service Sectors

PRIVATE SECTOR

PUBLIC SECTOR

Geographically based leadership team with office locations strategically selected to be in close proximity to our clients.

Service Disciplines

Air Quality, Odour & Noise Assessments
Our experts assess impacts on the environment for municipal, industrial, land development, and Indigenous applications

Asset Management
We manage important infrastructure assets in a collaborative and proactive manner

Bridge & Culvert Inspection Services
Durable, pragmatic, and cost-effective bridge and culvert design and inspection solutions

Development Engineering
From due diligence support through to construction review, contract administration, and assumption

Ecology & Environmental Services
Highly experienced planners, aquatic & terrestrial ecologists, scientists and engineers for any type of application

Structural, Mechanical & Electrical Services
Can complete any type of facility design and/or condition assessment

Forensic Engineering
Structural design experience to investigate structural failures and/or collapses of buildings and other types of structures

Hydrogeology
One of the largest teams in Ontario, completing a full range of groundwater remediation consulting services

Landscape Architecture
Sustainable, inclusive, and accessible landscape architecture and urban design solutions

Municipal Drainage
Complete engineering design and superintendent services under Ontario's Drainage Act

Municipal Peer Review
A variety of land development applications, including subdivisions, site plans, site alterations, and aggregate operations

Onsite Wastewater
Practical design solutions that require onsite and decentralized wastewater management

Solid Waste Management
Tailored and practical solutions, addressing regulatory requirements, best management practices, and future flexibility

Stormwater Management
Sustainable solutions for a wide variety of applications for both public and private clients

Transit
Delivering multi-modal solutions that are sustainable, efficient, and technically sound

Transportation Planning & Engineering
Planning, engineering and design and construction solutions within multi-modal strategies for projects of all sizes

Water & Wastewater
Sustainable and cost-effective solutions, from a small campground water system to a large treatment facility

Well Drilling & Groundwater Solutions
Sustainable groundwater solutions, offering complete, in-house, turnkey water well systems

Corporate Structure

Employee-Owned

John Burnside, M.Sc., P.Eng., MBA
Chairman and CEO

Operations

R.J. Burnside & Associates Limited
(Est. 1970 • Inc. July 1974)

Well Initiatives Ltd.
(Est. 2003)

Neegan Burnside Ltd.
(Est. 1999)

Lorena Niemi, P.Eng.
President

Board of Directors

John Burnside, M.Sc., P.Eng., MBA

Ian Drever, P.Eng.

James Orr, P.Eng.

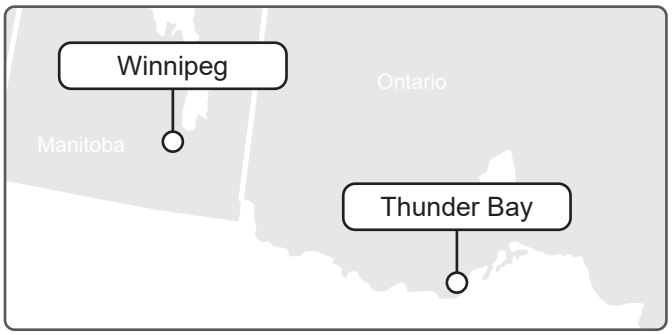
Jordan Phillips, P.Eng., MBA

Steven Roorda, P.Eng.

Chris Knechtel, P.Eng.

Debanjan Mookerjea, P.Eng.

Burnside Office Locations



- Head Office
- Local Burnside Office
- Burnside Office Location

Collingwood
Barrie
Newmarket
Orangeville
Wingham
Guelph
Pickering
Mississauga
Hamilton
Woodstock

Simcoe
Dufferin
York
Durham
Peel
Wellington
Huron
Oxford
Hamilton

BURNSIDE

Awards, Certificates of Authorization, and Memberships

Recent Corporate and Individual Awards

AWARD	DETAILS
Ontario Public Works Association (OPWA) Project of the Year (2025)	Burnside received an award for Project of the Year - Transportation Category, >$10M Division: Simcoe County Road 93 Roundabout and Multi-Use Trail. Burnside received an award for Project of the Year - Structures Category, <$2M Division: Township of Mulmur Bridge 12 & 21 Replacement. Burnside received an award for Project of the Year - Environmental - Climate Resilient Infrastructure Category, >$10M Division: Halton Region Ashgrove Pumping Station and Georgetown South Water & Watermain.
Association of Canadian Engineering Companies (ACEC) Ontario – Ontario Engineering Project Award (2025)	Burnside received an Ontario Engineering Project Award for the Halton Region Ashgrove Pumping Station and Georgetown South Water and Wastewater Mains Projects.
OPWA Wally Wells Young Leader Award (2025)	Mishaal Rizwan, B.Sc., MES, received this award that honours young OPWA members who have demonstrated commitment to the engineering profession and the OPWA.
Transportation Planning Member of the Year Award (2023)	David Angelakis, C.E.T., received this prestigious award acknowledging his contributions within the Ontario Traffic Council and for his leadership, dedication and commitment to transportation planning in Ontario.
ACEC Ontario – Ontario Engineering Project Award (2023)	Burnside received an Ontario Engineering Project Award for the Godey Water Supply Project.
Niagara Biennial Award (2022)	Burnside was awarded the Niagara Biennial Award for Outstanding Achievement in the Visionary Design Category (Sector: Municipalities) for the Ecological Park and Pedestrian Connection project.
Ontario Professional Engineering Awards - Medal for Engineering Excellence (2022)	Cory Jones, P.Eng. received the Medal for Engineering Excellence at the 2022 Ontario Professional Engineers Awards Gala.

AWARD	DETAILS
OPWA Project of the Year (2021)	Burnside received the award (Transportation Category, $2 - $10 Million Project Division) in 2021 for the Niska Road and Bridge Reconstruction in the City of Guelph. Burnside received the award (Structures Category, $2 - $10 Million Project Division) in 2021 for the Major Mackenzie Drive West Watermain Replacement in the City of Richmond Hill.
Ontario Association of Certified Engineering Technicians and Technologists (OACETT) Awards (2021)	Chris Pfohl, C.E.T., EP, CAN-CISEC, received the Outstanding Technical Achievement Award from the OACETT in recognition of the design, construction, and monitoring of the Barefoot Box Culvert™.
OPWA Project of the Year (2020)	Burnside received the award (Environment Category, $10 - $50 Million Project Division) in 2020 for the Alloa Reservoir and Pumping Station in the Region of Peel.
City of Kitchener – Great Places Awards – Placemaking Category	Burnside received the award in 2017 for the Walter Bean Trail Bridge.
ACEC Award of Excellence – International (2015)	Burnside received the award from the Association of Consulting Engineering Companies of Canada (ACEC) in 2015 for work undertaken in the water sector in Northern Mozambique.
Lake Simcoe Region Conservation Authority (LSRCA)	Burnside received the Water Conservation Award in 2015 for the Siloam Pond Natural Channel Design, Mill Run Golf and Country Club, Uxbridge, Ontario. Burnside received the Water Conservation Award Best Stormwater Management (SWM) Pond Retrofit in 2015 for the George Richardson Park SWM Pond Retrofit.
Canadian Farm Builders Association – Glen White Memorial Award – Project of the Year	Burnside received the award in 2014 for the Hobby / Recreational Facility.
OPWA Project of the Year (2014)	Burnside received the award in 2014 for the Rumble Pond Adaptive Stormwater Infrastructure Project.
Ontario Concrete Awards (OCA) – Architectural Hardscape	Burnside received the award in 2014 for the Lake Wilcox Park Waterfront Promenade in Richmond Hill.

AWARD	DETAILS
The Sand / Salt Institute	Burnside received the Safe and Sustainable Snowfighting Award for the MTO "Batchawana Bay" Conical "StoraDome" Retrofit Structure Project, AVP Construction Inc., completed in 2014.
OPWA Joe Johnson Sr. Private Sector Award	Burnside received the 2014 Joe Johnson Sr. Private Sector Award for contributions to public works by the Private Sector.
Wood Design Awards – Northern Ontario Excellence Award	Neegan Burnside Ltd. (Neegan Burnside) received the award in 2011 for the Sioux Lookout Hospital.
OPWA Project of the Year (2011)	Burnside received a Project of the Year award in 2011 for the Pioneer Park SWM Facility Rehabilitation in Richmond Hill.
Ready Mix Concrete Association of Ontario	Received an Honourable Mention Award for the Outdoor Ice Rink and Ancillary Structures, Windsor Ontario Charles Clarke Square completed in 2000.
Waterloo Chamber of Commerce	Burnside received the Environmental Achievement Award for our contributions to Urbanizing watershed within the City of Waterloo.

Current Corporate Certificates of Authorization

CERTIFICATES OF AUTHORIZATION
• Association of Professional Engineers and Geoscientists of Alberta (APEGA) • Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) • Association of Professional Engineers and Geoscientists of Manitoba (APEGM) • Professional Engineers of Ontario (PEO) • Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB) • Engineers Nova Scotia • Engineers PEI • Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL) • Association of Professional Geoscientists of Ontario (APGO)

Current Corporate and Individual Memberships

MEMBERSHIPS
• American Water Works Association (AWWA) • Association of Consulting Engineering Companies (ACEC) of Canada and Ontario (Previously Consulting Engineers of Ontario) • Association of Ontario Road Supervisors (AORS) • Association of Professional Geoscientists of Ontario (APGO) • Building Industry and Land Development Association (BILD) • Canadian Council for Indigenous Business (CCIB) • Canadian Environmental Certification Approvals Board (CECAB) • Canadian Federation of Independent Business (CFIB) • Canadian Institute of Planners • Canadian Society of Landscape Architects (CSLA) • Canadian Solar Industries Association • Contractor Check • Georgian Triangle Development Association (GTDA) • Greater Dufferin Homebuilders Association • Institute of Transportation Engineers • International Association of Hydrogeologists • Industry Canada Radio License • Land Improvement Contractors of Ontario (LICO) • LEED® Accredited Professionals (LEED® AP) • National Groundwater Association (NGWA) • Ontario Association of Certified Technicians and Technologists (OACETT) • Ontario Association of Landscape Architects (OALA) • Ontario Good Roads Association (OGRA) • Ontario Groundwater Association (OGWA) • Ontario Onsite Wastewater Association (OOWA) • Ontario Private Campground Association (OPCA) • Ontario Professional Planners Institute (OPPI) • Ontario Public Works Association (OPWA) • Ontario Traffic Council (OTC) • Ontario Water Well Technician Licensee • Ontario Water Works Association (OWWA) • Professional Engineers Ontario (PEO) • Project Management Professionals (PMP) • Registry, Appraisal and Qualification System (RAQS) • Transportation Association of Canada (TAC) • Water Environment Association of Ontario (WEAO) • Water Environment Federation (WEF) • WELL Accredited Professionals (WELL AP)

Association of Professional Engineers of the Province of Ontario

Certificate of Authorization

is hereby granted

R. J. Burnside & Associates Ltd.

To Practise

Professional Engineering

in the Province of Ontario
In accordance with the Provisions of
The Professional Engineers Act, 1970

Given under the Corporate Seal of the Association at Toronto this 23rd day of **October** *A.D.* 1974

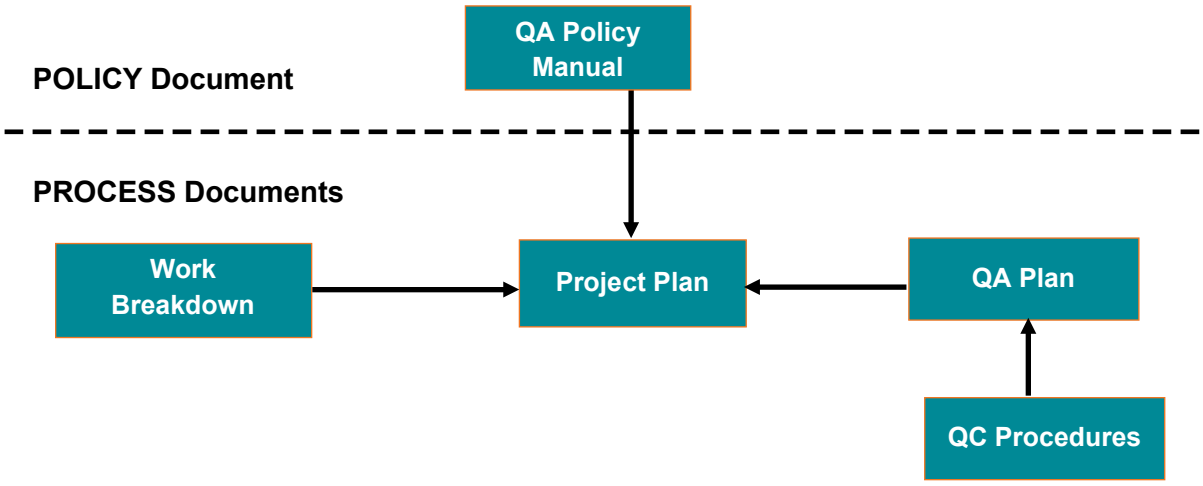
J. A. Harold P.Eng.
Registrar

This certificate is the property of the Association and must be surrendered when revoked

Quality Management Program

Burnside is committed to excellence in the delivery of quality services to its clients through Quality Control and Continuous Improvement. Senior Management and The Board of Directors at Burnside have instituted the Burnside Quality Assurance (QA) Policy Manual, which describes the Quality Management System that is used to assure the quality of professional engineering services provided by Burnside to their clients. Figure 1 provides an overview of the components of Burnside's Quality Management Program.

Figure 1: Burnside Quality Management Program



The QA Policy Manual mandates that every project undertaken at Burnside shall have a project specific Project Plan. The Project Plan consists of a project specific Work Breakdown Structure (WBS) that is a listing of all major tasks and associated schedules, and a project specific Quality Assurance (QA) Plan, which contains among other things our corporately developed QC procedures to control the quality of our services.

The WBS is created and maintained within our corporate enterprise planning system and the QA Plan and QC Procedures are created using our Standard Corporate Templates. In addition to listing all the applicable corporate QC Procedures that apply to the project, the QA Plan assigns project staff to QA/QC roles with associated responsibilities; includes a listing of all client standards; project deliverables; and an auditing schedule for compliance with the QA Plan. The auditing schedule is repeated in the WBS, where audits are triggered automatically by our enterprise planning system.

The Project Manager is responsible for preparing and maintaining the quality plan and assuring that work is executed in compliance with the quality plan.

Auditing to assure the plan is being executed is done by a party other than the project manager, and this individual is named in the QA Plan.

Continuous Learning occurs in many ways at Burnside and it is actively managed by staff managers and discussed during bi-annual staff reviews when needs and opportunities are identified.

Burnside has a number of training initiatives that are ongoing. A few of these include our project management training program, our internal lunch and learns where we share new knowledge acquired at conferences or on projects. We promote lunch and learns through equipment suppliers to provide us with their latest products. Our staff are also sent on training courses and to conferences to keep current with new skills and developments in engineering.

Health & Safety Policy

R.J. Burnside & Associates Limited, Neegan Burnside Ltd., and Well Initiatives Limited (hereto referred to as “the Company”) are fully committed to meeting all obligations under Health and Safety Legislation and Regulations applicable to the jurisdictions in which we work. Protection of all employees, clients, and visitors from workplace injury and illness is of paramount importance to the Company. Employees are expected to take appropriate measures to guard against risks of injury and illness.

As the **Employer**, the Company will allocate resources to create an effective strategy to manage any Health and Safety concerns through the development and maintenance of this Policy and associated Health and Safety Program.

Supervisors / Managers will be held accountable for the Health and Safety of all Workers under their supervision and are required to continually promote Health and Safety awareness with instruction, information, training, and supervision.

Workers (Employees) must protect their own Health and Safety by working in compliance with the Law and with the Health and Safety Programs established by the Company. Workers will receive adequate information, training, and competent supervision in their specific work tasks to protect their Health and Safety.

All Employees share responsibility for preventing accidents. Procedures, Work Instructions, Safety Bulletins, and other documents related to Health and Safety are clearly defined and accessible for all Employees on the Company Intranet site. It is in the best interests of all parties to consider and prioritize Health and Safety in every project and activity.

All Employees are responsible for reading, understanding and complying with this Health and Safety Policy and the Health & Safety Program.

Signed January 1, 2026

Lorena Niemi, President R.J. Burnside & Associates Limited	Cory Jones, President Neegan Burnside Ltd.	Dwayne Graff, President Well Initiatives Limited

Your clearance(s) / Vos certificats de décharge

We confirm that the business(es) listed below are active and in good standing with us.
Nous confirmons que la ou les entreprises énumérées ci-dessous sont actives et que leurs comptes sont en règle.

Contractor legal or trade name / Raison sociale ou appellation commerciale de l'entrepreneur	Contractor address / Adresse de l'entrepreneur	Contractor NAICS Code and Code Description / Code du SCIAN de l'entrepreneur et description	Clearance certificate number / Numéro du certificat de décharge	Validity period (dd-mmm-yyyy) / Période de validité (jj-mmm-aaaa)
R.J. BURNSIDE & ASSOCIATES LIMITED	15 TOWN LINE, ORANGEVILLE, ON, L9W3R4, CA	237110: Water and sewer line and related structures construction 541330: Engineering services	A0000JP1F0	20-Feb-2026 to 19-May-2026

Under Section 141 of the *Workplace Safety and Insurance Act*, the WSIB waives our right to hold the principal (the business that has entered into a contractual agreement with the contractor/subcontractor) liable for any unpaid premiums and other amounts the contractor may owe us for the validity period specified.
Aux termes de l'article 141 de la *Loi sur la sécurité professionnelle et l'assurance contre les accidents du travail*, la WSIB renonce à son droit de tenir l'entrepreneur principal (l'entreprise qui a conclu une entente contractuelle avec l'entrepreneur ou le sous-traitant) responsable de toute prime impayée et autre montant que l'entrepreneur pourrait lui devoir pour la période de validité indiquée.

WSIB Head Office: 200 Front Street West
Toronto, Ontario, Canada M5V 3J1

Siège social : 200, rue Front Ouest
Toronto (Ontario) Canada M5V 3J1

1-800-387-0750 | TTY/ATS 1-800-387-0050
employeraccounts@wsib.on.ca | wsib.ca

BURNSIDE

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Appendix C

Technical Figures and Tables

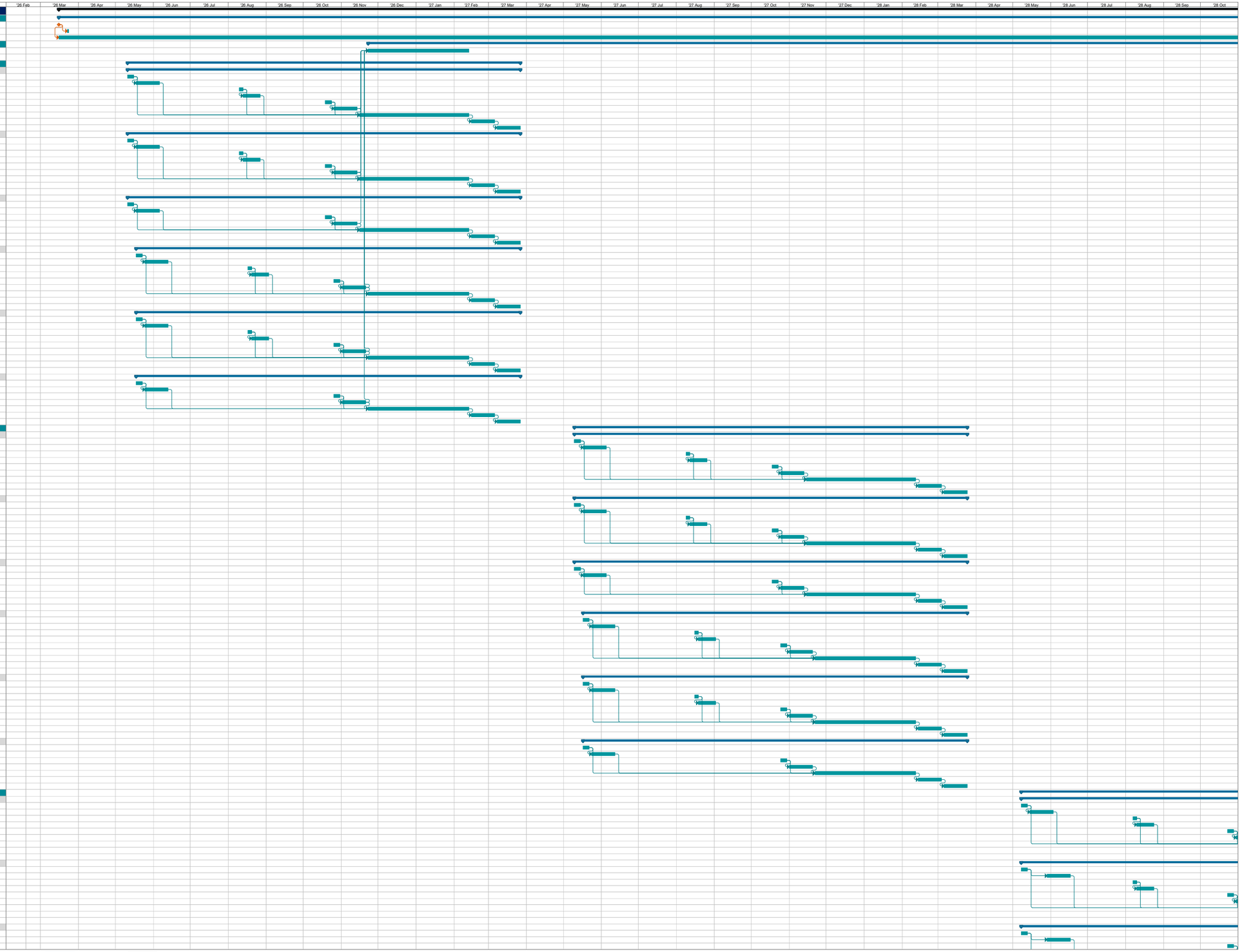
Time-Task Matrix - Year 1 (2026)

PW-2026-01 - Landfill Monitoring and Engineering Services - Township of Lanark Highlands - 900060778.0001

	Role	Project Manager	QA/QC Manager / Engineering Support	Monitoring and Reporting Lead	Field Technician	Field Technician	Field Technician	Field Technician	CADD	Admin	Total Staff Hours	Laboratory Analysis	Total Hours
	Name	Stephen Taziar	Jamie Hollingsworth	Anika Cole	Matt Valeriote	Sam Gredig	Emma Pentney	Jeremy Harbinson				Caduceon	
	Designation	P.Eng., DCE	P.Eng.	M.Sc.	B.E.S.	B.Sc.(Env.), GIT	B.Sc.	M.Sc.					
	Years of Experience:	33	37	25	14	2	10	5					
A	**Project Management**												
A.1	Project Management for Meetings, Coordination of Monitoring Programs	12.0	2.0	12.0						1.0	**27.0**		**27.0**
	Project Management Subtotal Hours	**12.0**	**2.0**	**12.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	**27.0**		**27.0**
B	**Administrative Disbursements**												
B.1	Administrative Disbursements										**0.0**		**0.0**
	Administrative Disbursements Subtotal Hours	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**		**0.0**
C	**Site 200 - Lanark Village WDS**												
C.1	Analytical (lab fees, mileage costs)										**0.0**	LUMP SUM	**0.0**
C.2	Sampling			1.0	32.0	32.0					**65.0**		**65.0**
C.3	Annual Reporting	8.0		30.0		10.0			10.0	2.0	**60.0**		**60.0**
	Site 200 - Lanark Village WDS Subtotal Hours	**8.0**	**0.0**	**31.0**	**32.0**	**42.0**	**0.0**	**0.0**	**10.0**	**2.0**	**125.0**		**125.0**
D	**Site 400 - Robertson Lake WDS**												
D.1	Analytical (lab fees, mileage costs)										**0.0**	LUMP SUM	**0.0**
D.2	Sampling			1.0			27.0	27.0			**55.0**		**55.0**
D.3	Annual Reporting	8.0		25.0				10.0	8.0	2.0	**53.0**		**53.0**
	Site 400 - Robertson Lake WDS Subtotal Hours	**8.0**	**0.0**	**26.0**	**0.0**	**0.0**	**27.0**	**37.0**	**8.0**	**2.0**	**108.0**		**108.0**
E	**Site 500 - Snye Road WDS**												
E.1	Analytical (lab fees, mileage costs)										**0.0**	LUMP SUM	**0.0**
E.2	Sampling			1.0	18.0	18.0					**37.0**		**37.0**
E.3	Annual Reporting	5.0		20.0		10.0			8.0	2.0	**45.0**		**45.0**
	Site 500 - Snye Road WDS Subtotal Hours	**5.0**	**0.0**	**21.0**	**18.0**	**28.0**	**0.0**	**0.0**	**8.0**	**2.0**	**82.0**		**82.0**
F	**Site 600 - Watsons Corner WDS**												
F.1	Analytical (lab fees, mileage costs)										**0.0**	LUMP SUM	**0.0**
F.2	Sampling			1.0	14.0	14.0					**29.0**		**29.0**
F.3	Annual Reporting	4.0		20.0				10.0	8.0	2.0	**44.0**		**44.0**
	Site 600 - Watsons Corner WDS Subtotal Hours	**4.0**	**0.0**	**21.0**	**14.0**	**14.0**	**0.0**	**10.0**	**8.0**	**2.0**	**73.0**		**73.0**
G	**Site 700 - Middleville WDS**												
G.1	Analytical (lab fees, mileage costs)										**0.0**	LUMP SUM	**0.0**
G.2	Sampling			1.0	32.0	32.0					**65.0**		**65.0**
G.3	Annual Reporting	8.0		30.0		10.0			10.0	2.0	**60.0**		**60.0**
	Site 700 - Middleville WDS Subtotal Hours	**8.0**	**0.0**	**31.0**	**32.0**	**42.0**	**0.0**	**0.0**	**10.0**	**2.0**	**125.0**		**125.0**
H	**Site 800 - Flower Station WDS**												
H.1	Analytical (lab fees, mileage costs)										**0.0**	LUMP SUM	**0.0**
H.2	Sampling			1.0			8.0	8.0			**17.0**		**17.0**
H.3	Annual Reporting	3.0		16.0				8.0	8.0	2.0	**37.0**		**37.0**
	Site 800 - Flower Station WDS Subtotal Hours	**3.0**	**0.0**	**17.0**	**0.0**	**0.0**	**8.0**	**16.0**	**8.0**	**2.0**	**54.0**		**54.0**
	Grand Total Staff Hours	**48.0**	**2.0**	**159.0**	**96.0**	**126.0**	**35.0**	**63.0**	**52.0**	**13.0**	**594.0**		**594.0**

Preliminary Project Schedule

ID	Task Name	Duration	Start	Finish
0	**PW-2026-01 - Landfill Monitoring and Engineering Services**	**1315days**	**Mon 26-03-16**	**Fri 31-03-28**
1	**Project Management**	**1315days**	**Mon 26-03-16**	**Fri 31-03-28**
2	Project Award	0days	Mon 26-03-16	Mon 26-03-16
3	Project Kickoff Meeting	1day	Mon 26-03-23	Mon 26-03-23
4	Project Management for Meetings, Coordination of Monitoring Programs	1315days	Mon 26-03-16	Fri 31-03-28
5	**Closure Costs**	**585days**	**Mon 26-11-23**	**Fri 29-02-16**
6	Year 1 Closure Cost Reporting (2026)	60days	Mon 26-11-23	Fri 27-02-12
7	Year 3 Closure Cost Reporting (2028)	60days	Mon 28-11-27	Fri 29-02-16
8	**Sampling, Analysis, and Reporting - 2026 Monitoring Year**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
9	**Site 200 - Lanark Village WDS**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
10	Spring Field Work	5days	Mon 26-05-11	Fri 26-05-15
11	Spring Data Analysis & QA/QC	15days	Mon 26-05-18	Fri 26-06-05
12	Summer Field Work	3days	Mon 26-08-10	Wed 26-08-12
13	Summer Data Analysis & QA/QC	10days	Thu 26-08-13	Wed 26-08-26
14	Fall Field Work	5days	Mon 26-10-19	Fri 26-10-23
15	Fall Data Analysis & QA/QC	15days	Mon 26-10-26	Fri 26-11-13
16	Draft Annual Reporting & QA/QC	65days	Mon 26-11-16	Fri 27-02-12
17	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
18	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
19	**Site 400 - Robertson Lake WDS**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
20	Spring Field Work	5days	Mon 26-05-11	Fri 26-05-15
21	Spring Data Analysis & QA/QC	15days	Mon 26-05-18	Fri 26-06-05
22	Summer Field Work	3days	Mon 26-08-10	Wed 26-08-12
23	Summer Data Analysis & QA/QC	10days	Thu 26-08-13	Wed 26-08-26
24	Fall Field Work	5days	Mon 26-10-19	Fri 26-10-23
25	Fall Data Analysis & QA/QC	15days	Mon 26-10-26	Fri 26-11-13
26	Draft Annual Reporting & QA/QC	65days	Mon 26-11-16	Fri 27-02-12
27	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
28	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
29	**Site 500 - Snye Road WDS**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
30	Spring Field Work	5days	Mon 26-05-11	Fri 26-05-15
31	Spring Data Analysis & QA/QC	15days	Mon 26-05-18	Fri 26-06-05
32	Fall Field Work	5days	Mon 26-10-19	Fri 26-10-23
33	Fall Data Analysis & QA/QC	15days	Mon 26-10-26	Fri 26-11-13
34	Draft Annual Reporting & QA/QC	65days	Mon 26-11-16	Fri 27-02-12
35	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
36	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
37	**Site 600 - Watsons Corner WDS**	**225days**	**Mon 26-05-18**	**Fri 27-03-26**
38	Spring Field Work	5days	Mon 26-05-18	Fri 26-05-22
39	Spring Data Analysis & QA/QC	15days	Mon 26-05-25	Fri 26-06-12
40	Summer Field Work	3days	Mon 26-08-17	Wed 26-08-19
41	Summer Data Analysis & QA/QC	10days	Thu 26-08-20	Wed 26-09-02
42	Fall Field Work	5days	Mon 26-10-26	Fri 26-10-30
43	Fall Data Analysis & QA/QC	15days	Mon 26-11-02	Fri 26-11-20
44	Draft Annual Reporting & QA/QC	60days	Mon 26-11-23	Fri 27-02-12
45	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
46	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
47	**Site 700 - Middleville WDS**	**225days**	**Mon 26-05-18**	**Fri 27-03-26**
48	Spring Field Work	5days	Mon 26-05-18	Fri 26-05-22
49	Spring Data Analysis & QA/QC	15days	Mon 26-05-25	Fri 26-06-12
50	Summer Field Work	3days	Mon 26-08-17	Wed 26-08-19
51	Summer Data Analysis & QA/QC	10days	Thu 26-08-20	Wed 26-09-02
52	Fall Field Work	5days	Mon 26-10-26	Fri 26-10-30
53	Fall Data Analysis & QA/QC	15days	Mon 26-11-02	Fri 26-11-20
54	Draft Annual Reporting & QA/QC	60days	Mon 26-11-23	Fri 27-02-12
55	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
56	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
57	**Site 800 - Flower Station WDS**	**225days**	**Mon 26-05-18**	**Fri 27-03-26**
58	Spring Field Work	5days	Mon 26-05-18	Fri 26-05-22
59	Spring Data Analysis & QA/QC	15days	Mon 26-05-25	Fri 26-06-12
60	Fall Field Work	5days	Mon 26-10-26	Fri 26-10-30
61	Fall Data Analysis & QA/QC	15days	Mon 26-11-02	Fri 26-11-20
62	Draft Annual Reporting & QA/QC	60days	Mon 26-11-23	Fri 27-02-12
63	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
64	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
65	**Sampling, Analysis, and Reporting - 2027 Monitoring Year**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
66	**Site 200 - Lanark Village WDS**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
67	Spring Field Work	5days	Mon 27-05-10	Fri 27-05-14
68	Spring Data Analysis & QA/QC	15days	Mon 27-05-17	Fri 27-06-04
69	Summer Field Work	3days	Mon 27-08-09	Wed 27-08-11
70	Summer Data Analysis & QA/QC	10days	Thu 27-08-12	Wed 27-08-25
71	Fall Field Work	5days	Mon 27-10-18	Fri 27-10-22
72	Fall Data Analysis & QA/QC	15days	Mon 27-10-25	Fri 27-11-12
73	Draft Annual Reporting & QA/QC	65days	Mon 27-11-15	Fri 28-02-11
74	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
75	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
76	**Site 400 - Robertson Lake WDS**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
77	Spring Field Work	5days	Mon 27-05-10	Fri 27-05-14
78	Spring Data Analysis & QA/QC	15days	Mon 27-05-17	Fri 27-06-04
79	Summer Field Work	3days	Mon 27-08-09	Wed 27-08-11
80	Summer Data Analysis & QA/QC	10days	Thu 27-08-12	Wed 27-08-25
81	Fall Field Work	5days	Mon 27-10-18	Fri 27-10-22
82	Fall Data Analysis & QA/QC	15days	Mon 27-10-25	Fri 27-11-12
83	Draft Annual Reporting & QA/QC	65days	Mon 27-11-15	Fri 28-02-11
84	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
85	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
86	**Site 500 - Snye Road WDS**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
87	Spring Field Work	5days	Mon 27-05-10	Fri 27-05-14
88	Spring Data Analysis & QA/QC	15days	Mon 27-05-17	Fri 27-06-04
89	Fall Field Work	5days	Mon 27-10-18	Fri 27-10-22
90	Fall Data Analysis & QA/QC	15days	Mon 27-10-25	Fri 27-11-12
91	Draft Annual Reporting & QA/QC	65days	Mon 27-11-15	Fri 28-02-11
92	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
93	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
94	**Site 600 - Watsons Corner WDS**	**225days**	**Mon 27-05-17**	**Fri 28-03-24**
95	Spring Field Work	5days	Mon 27-05-17	Fri 27-05-21
96	Spring Data Analysis & QA/QC	15days	Mon 27-05-24	Fri 27-06-11
97	Summer Field Work	3days	Mon 27-08-16	Wed 27-08-18
98	Summer Data Analysis & QA/QC	10days	Thu 27-08-19	Wed 27-09-01
99	Fall Field Work	5days	Mon 27-10-25	Fri 27-10-29
100	Fall Data Analysis & QA/QC	15days	Mon 27-11-01	Fri 27-11-19
101	Draft Annual Reporting & QA/QC	60days	Mon 27-11-22	Fri 28-02-11
102	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
103	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
104	**Site 700 - Middleville WDS**	**225days**	**Mon 27-05-17**	**Fri 28-03-24**
105	Spring Field Work	5days	Mon 27-05-17	Fri 27-05-21
106	Spring Data Analysis & QA/QC	15days	Mon 27-05-24	Fri 27-06-11
107	Summer Field Work	3days	Mon 27-08-16	Wed 27-08-18
108	Summer Data Analysis & QA/QC	10days	Thu 27-08-19	Wed 27-09-01
109	Fall Field Work	5days	Mon 27-10-25	Fri 27-10-29
110	Fall Data Analysis & QA/QC	15days	Mon 27-11-01	Fri 27-11-19
111	Draft Annual Reporting & QA/QC	60days	Mon 27-11-22	Fri 28-02-11
112	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
113	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
114	**Site 800 - Flower Station WDS**	**225days**	**Mon 27-05-17**	**Fri 28-03-24**
115	Spring Field Work	5days	Mon 27-05-17	Fri 27-05-21
116	Spring Data Analysis & QA/QC	15days	Mon 27-05-24	Fri 27-06-11
117	Fall Field Work	5days	Mon 27-10-25	Fri 27-10-29
118	Fall Data Analysis & QA/QC	15days	Mon 27-11-01	Fri 27-11-19
119	Draft Annual Reporting & QA/QC	60days	Mon 27-11-22	Fri 28-02-11
120	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
121	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
122	**Sampling, Analysis, and Reporting - 2028 Monitoring Year**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
123	**Site 200 - Lanark Village WDS**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
124	Spring Field Work	5days	Mon 28-05-08	Fri 28-05-12
125	Spring Data Analysis & QA/QC	15days	Mon 28-05-15	Fri 28-06-02
126	Summer Field Work	3days	Mon 28-08-07	Wed 28-08-09
127	Summer Data Analysis & QA/QC	10days	Thu 28-08-10	Wed 28-08-23
128	Fall Field Work	5days	Mon 28-10-23	Fri 28-10-27
129	Fall Data Analysis & QA/QC	15days	Mon 28-10-30	Fri 28-11-17
130	Draft Annual Reporting & QA/QC	65days	Mon 28-11-20	Fri 29-02-16
131	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
132	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
133	**Site 400 - Robertson Lake WDS**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
134	Spring Field Work	5days	Mon 28-05-08	Fri 28-05-12
135	Spring Data Analysis & QA/QC	15days	Mon 28-05-29	Fri 28-06-16
136	Summer Field Work	3days	Mon 28-08-07	Wed 28-08-09
137	Summer Data Analysis & QA/QC	10days	Thu 28-08-10	Wed 28-08-23
138	Fall Field Work	5days	Mon 28-10-23	Fri 28-10-27
139	Fall Data Analysis & QA/QC	15days	Mon 28-10-30	Fri 28-11-17
140	Draft Annual Reporting & QA/QC	65days	Mon 28-11-20	Fri 29-02-16
141	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
142	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
143	**Site 500 - Snye Road WDS**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
144	Spring Field Work	5days	Mon 28-05-08	Fri 28-05-12
145	Spring Data Analysis & QA/QC	15days	Mon 28-05-29	Fri 28-06-16
146	Fall Field Work	5days	Mon 28-10-23	Fri 28-10-27



Task | Split | Meetings / Milestones | Summary | Project Summary | Deadline

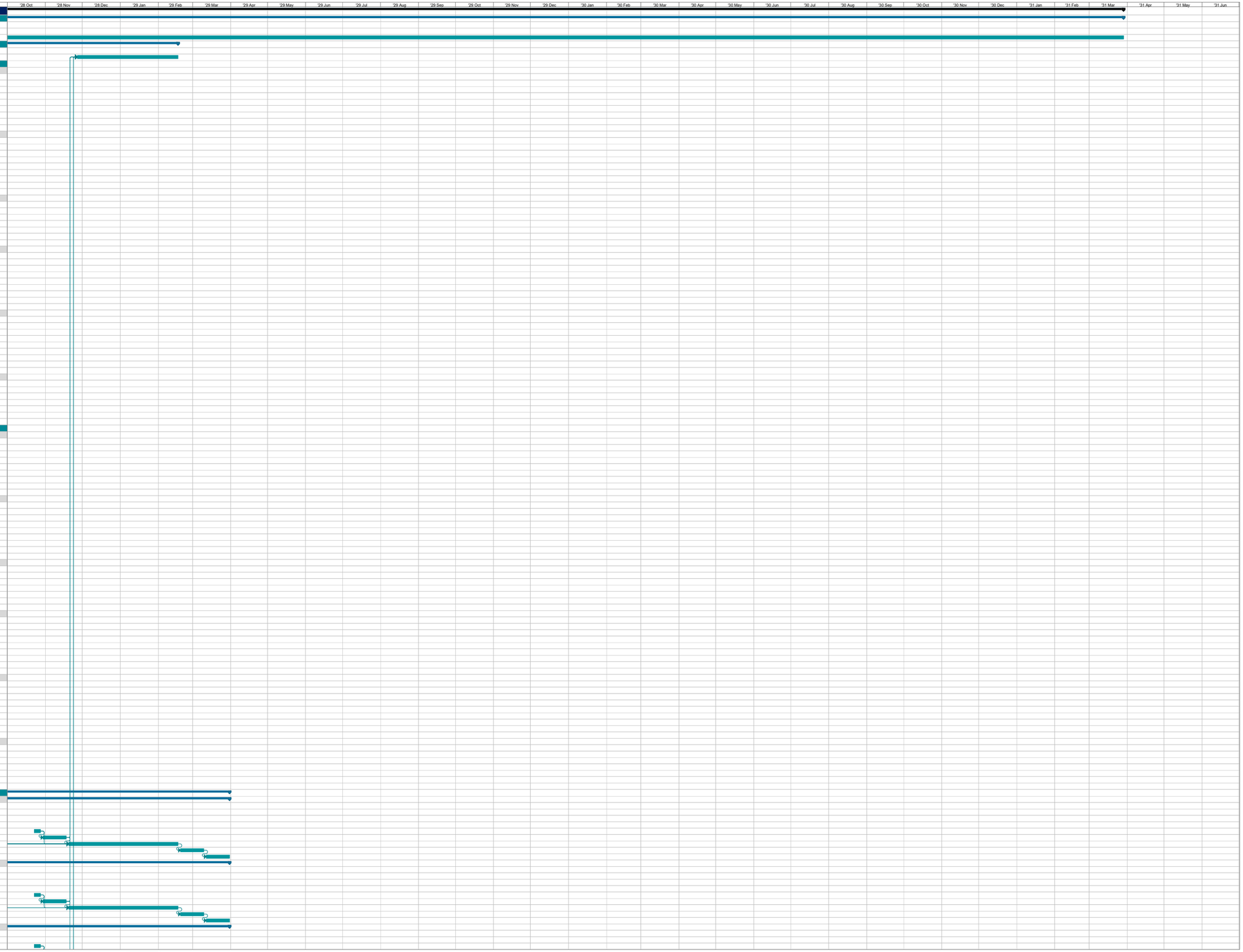
Preliminary Project Schedule

ID	Task Name	Duration	Start	Finish
147	Fall Data Analysis & QA/QC	15days	Mon 28-10-30	Fri 28-11-17
148	Draft Annual Reporting & QA/QC	65days	Mon 28-11-20	Fri 29-02-16
149	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
150	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
151	**Site 600 - Watsons Corner WDS**	**230days**	**Mon 28-05-15**	**Fri 29-03-30**
152	Spring Field Work	5days	Mon 28-05-15	Fri 28-05-19
153	Spring Data Analysis & QA/QC	15days	Mon 28-05-22	Fri 28-06-09
154	Summer Field Work	3days	Mon 28-08-14	Wed 28-08-16
155	Summer Data Analysis & QA/QC	10days	Thu 28-08-17	Wed 28-08-30
156	Fall Field Work	5days	Mon 28-10-30	Fri 28-11-03
157	Fall Data Analysis & QA/QC	15days	Mon 28-11-06	Fri 28-11-24
158	Draft Annual Reporting & QA/QC	60days	Mon 28-11-27	Fri 29-02-16
159	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
160	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
161	**Site 700 - Middleville WDS**	**230days**	**Mon 28-05-15**	**Fri 29-03-30**
162	Spring Field Work	5days	Mon 28-05-15	Fri 28-05-19
163	Spring Data Analysis & QA/QC	15days	Mon 28-06-05	Fri 28-06-23
164	Summer Field Work	3days	Mon 28-08-14	Wed 28-08-16
165	Summer Data Analysis & QA/QC	10days	Thu 28-08-17	Wed 28-08-30
166	Fall Field Work	5days	Mon 28-10-30	Fri 28-11-03
167	Fall Data Analysis & QA/QC	15days	Mon 28-11-06	Fri 28-11-24
168	Draft Annual Reporting & QA/QC	60days	Mon 28-11-27	Fri 29-02-16
169	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
170	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
171	**Site 800 - Flower Station WDS**	**230days**	**Mon 28-05-15**	**Fri 29-03-30**
172	Spring Field Work	5days	Mon 28-05-15	Fri 28-05-19
173	Spring Data Analysis & QA/QC	15days	Mon 28-06-05	Fri 28-06-23
174	Fall Field Work	5days	Mon 28-10-30	Fri 28-11-03
175	Fall Data Analysis & QA/QC	15days	Mon 28-11-06	Fri 28-11-24
176	Draft Annual Reporting & QA/QC	60days	Mon 28-11-27	Fri 29-02-16
177	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
178	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
179	**Sampling, Analysis, and Reporting - 2029 Monitoring Year**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
180	**Site 200 - Lanark Village WDS**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
181	Spring Field Work	5days	Mon 29-05-07	Fri 29-05-11
182	Spring Data Analysis & QA/QC	15days	Mon 29-05-14	Fri 29-06-01
183	Summer Field Work	3days	Mon 29-08-06	Wed 29-08-08
184	Summer Data Analysis & QA/QC	10days	Thu 29-08-09	Wed 29-08-22
185	Fall Field Work	5days	Mon 29-10-22	Fri 29-10-26
186	Fall Data Analysis & QA/QC	15days	Mon 29-10-29	Fri 29-11-16
187	Draft Annual Reporting & QA/QC	65days	Mon 29-11-19	Fri 30-02-15
188	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
189	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
190	**Site 400 - Robertson Lake WDS**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
191	Spring Field Work	5days	Mon 29-05-07	Fri 29-05-11
192	Spring Data Analysis & QA/QC	15days	Mon 29-05-28	Fri 29-06-15
193	Summer Field Work	3days	Mon 29-08-06	Wed 29-08-08
194	Summer Data Analysis & QA/QC	10days	Thu 29-08-09	Wed 29-08-22
195	Fall Field Work	5days	Mon 29-10-22	Fri 29-10-26
196	Fall Data Analysis & QA/QC	15days	Mon 29-10-29	Fri 29-11-16
197	Draft Annual Reporting & QA/QC	65days	Mon 29-11-19	Fri 30-02-15
198	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
199	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
200	**Site 500 - Skye Road WDS**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
201	Spring Field Work	5days	Mon 29-05-07	Fri 29-05-11
202	Spring Data Analysis & QA/QC	15days	Mon 29-05-28	Fri 29-06-15
203	Fall Field Work	5days	Mon 29-10-22	Fri 29-10-26
204	Fall Data Analysis & QA/QC	15days	Mon 29-10-29	Fri 29-11-16
205	Draft Annual Reporting & QA/QC	65days	Mon 29-11-19	Fri 30-02-15
206	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
207	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
208	**Site 600 - Watsons Corner WDS**	**230days**	**Mon 29-05-14**	**Fri 30-03-29**
209	Spring Field Work	5days	Mon 29-05-14	Fri 29-05-18
210	Spring Data Analysis & QA/QC	15days	Mon 29-05-28	Fri 29-06-15
211	Summer Field Work	3days	Mon 29-08-13	Wed 29-08-15
212	Summer Data Analysis & QA/QC	10days	Thu 29-08-16	Wed 29-08-29
213	Fall Field Work	5days	Mon 29-10-29	Fri 29-11-02
214	Fall Data Analysis & QA/QC	15days	Mon 29-11-05	Fri 29-11-23
215	Draft Annual Reporting & QA/QC	60days	Mon 29-11-26	Fri 30-02-15
216	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
217	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
218	**Site 700 - Middleville WDS**	**230days**	**Mon 29-05-14**	**Fri 30-03-29**
219	Spring Field Work	5days	Mon 29-05-14	Fri 29-05-18
220	Spring Data Analysis & QA/QC	15days	Mon 29-06-04	Fri 29-06-22
221	Summer Field Work	3days	Mon 29-08-13	Wed 29-08-15
222	Summer Data Analysis & QA/QC	10days	Thu 29-08-16	Wed 29-08-29
223	Fall Field Work	5days	Mon 29-10-29	Fri 29-11-02
224	Fall Data Analysis & QA/QC	15days	Mon 29-11-05	Fri 29-11-23
225	Draft Annual Reporting & QA/QC	60days	Mon 29-11-26	Fri 30-02-15
226	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
227	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
228	**Site 800 - Flower Station WDS**	**230days**	**Mon 29-05-14**	**Fri 30-03-29**
229	Spring Field Work	5days	Mon 29-05-14	Fri 29-05-18
230	Spring Data Analysis & QA/QC	15days	Mon 29-06-04	Fri 29-06-22
231	Fall Field Work	5days	Mon 29-10-29	Fri 29-11-02
232	Fall Data Analysis & QA/QC	15days	Mon 29-11-05	Fri 29-11-23
233	Draft Annual Reporting & QA/QC	60days	Mon 29-11-26	Fri 30-02-15
234	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
235	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
236	**Sampling, Analysis, and Reporting - 2030 Monitoring Year**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
237	**Site 200 - Lanark Village WDS**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
238	Spring Field Work	5days	Mon 30-05-06	Fri 30-05-10
239	Spring Data Analysis & QA/QC	15days	Mon 30-05-13	Fri 30-05-31
240	Summer Field Work	3days	Mon 30-08-05	Wed 30-08-07
241	Summer Data Analysis & QA/QC	10days	Thu 30-08-08	Wed 30-08-21
242	Fall Field Work	5days	Mon 30-10-21	Fri 30-10-25
243	Fall Data Analysis & QA/QC	15days	Mon 30-10-28	Fri 30-11-15
244	Draft Annual Reporting & QA/QC	65days	Mon 30-11-18	Fri 31-02-14
245	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
246	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
247	**Site 400 - Robertson Lake WDS**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
248	Spring Field Work	5days	Mon 30-05-06	Fri 30-05-10
249	Spring Data Analysis & QA/QC	15days	Mon 30-05-27	Fri 30-06-14
250	Summer Field Work	3days	Mon 30-08-05	Wed 30-08-07
251	Summer Data Analysis & QA/QC	10days	Thu 30-08-08	Wed 30-08-21
252	Fall Field Work	5days	Mon 30-10-21	Fri 30-10-25
253	Fall Data Analysis & QA/QC	15days	Mon 30-10-28	Fri 30-11-15
254	Draft Annual Reporting & QA/QC	65days	Mon 30-11-18	Fri 31-02-14
255	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
256	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
257	**Site 500 - Skye Road WDS**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
258	Spring Field Work	5days	Mon 30-05-06	Fri 30-05-10
259	Spring Data Analysis & QA/QC	15days	Mon 30-05-27	Fri 30-06-14
260	Fall Field Work	5days	Mon 30-10-21	Fri 30-10-25
261	Fall Data Analysis & QA/QC	15days	Mon 30-10-28	Fri 30-11-15
262	Draft Annual Reporting & QA/QC	65days	Mon 30-11-18	Fri 31-02-14
263	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
264	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
265	**Site 600 - Watsons Corner WDS**	**230days**	**Mon 30-05-13**	**Fri 31-03-28**
266	Spring Field Work	5days	Mon 30-05-13	Fri 30-05-17
267	Spring Data Analysis & QA/QC	15days	Mon 30-05-27	Fri 30-06-14
268	Summer Field Work	3days	Mon 30-08-12	Wed 30-08-14
269	Summer Data Analysis & QA/QC	10days	Thu 30-08-15	Wed 30-08-28
270	Fall Field Work	5days	Mon 30-10-28	Fri 30-11-01
271	Fall Data Analysis & QA/QC	15days	Mon 30-11-04	Fri 30-11-22
272	Draft Annual Reporting & QA/QC	60days	Mon 30-11-25	Fri 31-02-14
273	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
274	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
275	**Site 700 - Middleville WDS**	**230days**	**Mon 30-05-13**	**Fri 31-03-28**
276	Spring Field Work	5days	Mon 30-05-13	Fri 30-05-17
277	Spring Data Analysis & QA/QC	15days	Mon 30-06-03	Fri 30-06-21
278	Summer Field Work	3days	Mon 30-08-12	Wed 30-08-14
279	Summer Data Analysis & QA/QC	10days	Thu 30-08-15	Wed 30-08-28
280	Fall Field Work	5days	Mon 30-10-28	Fri 30-11-01
281	Fall Data Analysis & QA/QC	15days	Mon 30-11-04	Fri 30-11-22
282	Draft Annual Reporting & QA/QC	60days	Mon 30-11-25	Fri 31-02-14
283	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
284	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
285	**Site 800 - Flower Station WDS**	**230days**	**Mon 30-05-13**	**Fri 31-03-28**
286	Spring Field Work	5days	Mon 30-05-13	Fri 30-05-17
287	Spring Data Analysis & QA/QC	15days	Mon 30-06-03	Fri 30-06-21
288	Fall Field Work	5days	Mon 30-10-28	Fri 30-11-01
289	Fall Data Analysis & QA/QC	15days	Mon 30-11-04	Fri 30-11-22
290	Draft Annual Reporting & QA/QC	60days	Mon 30-11-25	Fri 31-02-14
291	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
292	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28

Task Split Meetings / Milestones Summary Project Summary Deadline

Preliminary Project Schedule

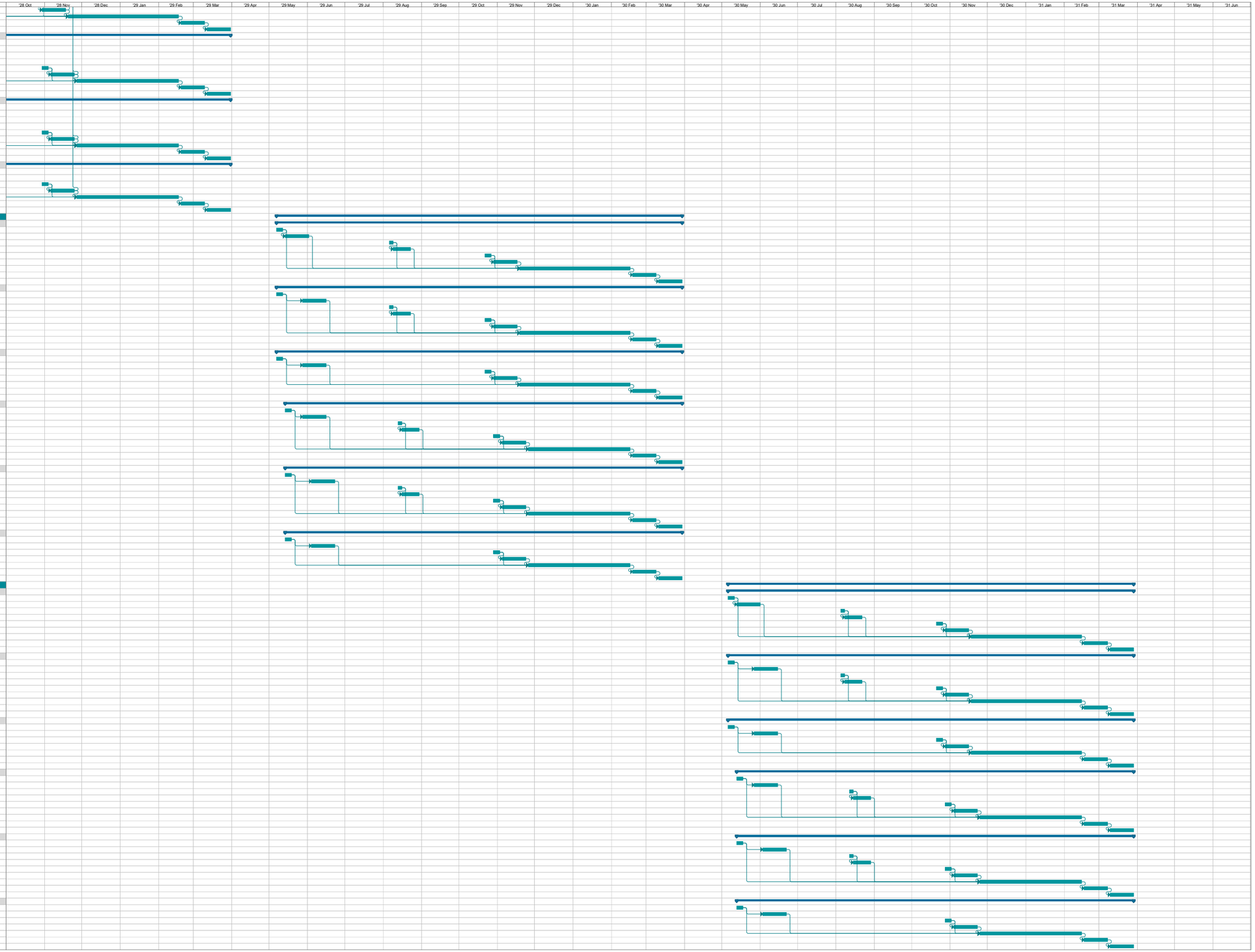
ID	Task Name	Duration	Start	Finish
0	**PW-2026-01 - Landfill Monitoring and Engineering Services**	**1315days**	**Mon 26-03-16**	**Fri 31-03-28**
1	**Project Management**	**1315days**	**Mon 26-03-16**	**Fri 31-03-28**
2	Project Award	0days	Mon 26-03-16	Mon 26-03-16
3	Project Kickoff Meeting	1day	Mon 26-03-23	Mon 26-03-23
4	Project Management for Meetings, Coordination of Monitoring Programs	1315days	Mon 26-03-16	Fri 31-03-28
5	**Closure Costs**	**585days**	**Mon 26-11-23**	**Fri 29-02-16**
6	Year 1 Closure Cost Reporting (2026)	60days	Mon 26-11-23	Fri 27-02-12
7	Year 3 Closure Cost Reporting (2028)	60days	Mon 28-11-27	Fri 29-02-16
8	**Sampling, Analysis, and Reporting - 2026 Monitoring Year**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
9	**Site 200 - Lanark Village WDS**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
10	Spring Field Work	5days	Mon 26-05-11	Fri 26-05-15
11	Spring Data Analysis & QA/QC	15days	Mon 26-05-18	Fri 26-06-05
12	Summer Field Work	3days	Mon 26-08-10	Wed 26-08-12
13	Summer Data Analysis & QA/QC	10days	Thu 26-08-13	Wed 26-08-26
14	Fall Field Work	5days	Mon 26-10-19	Fri 26-10-23
15	Fall Data Analysis & QA/QC	15days	Mon 26-10-26	Fri 26-11-13
16	Draft Annual Reporting & QA/QC	65days	Mon 26-11-16	Fri 27-02-12
17	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
18	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
19	**Site 400 - Robertson Lake WDS**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
20	Spring Field Work	5days	Mon 26-05-11	Fri 26-05-15
21	Spring Data Analysis & QA/QC	15days	Mon 26-05-18	Fri 26-06-05
22	Summer Field Work	3days	Mon 26-08-10	Wed 26-08-12
23	Summer Data Analysis & QA/QC	10days	Thu 26-08-13	Wed 26-08-26
24	Fall Field Work	5days	Mon 26-10-19	Fri 26-10-23
25	Fall Data Analysis & QA/QC	15days	Mon 26-10-26	Fri 26-11-13
26	Draft Annual Reporting & QA/QC	65days	Mon 26-11-16	Fri 27-02-12
27	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
28	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
29	**Site 500 - Snye Road WDS**	**230days**	**Mon 26-05-11**	**Fri 27-03-26**
30	Spring Field Work	5days	Mon 26-05-11	Fri 26-05-15
31	Spring Data Analysis & QA/QC	15days	Mon 26-05-18	Fri 26-06-05
32	Fall Field Work	5days	Mon 26-10-19	Fri 26-10-23
33	Fall Data Analysis & QA/QC	15days	Mon 26-10-26	Fri 26-11-13
34	Draft Annual Reporting & QA/QC	65days	Mon 26-11-16	Fri 27-02-12
35	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
36	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
37	**Site 600 - Watsons Corner WDS**	**225days**	**Mon 26-05-18**	**Fri 27-03-26**
38	Spring Field Work	5days	Mon 26-05-18	Fri 26-05-22
39	Spring Data Analysis & QA/QC	15days	Mon 26-05-25	Fri 26-06-12
40	Summer Field Work	3days	Mon 26-08-17	Wed 26-08-19
41	Summer Data Analysis & QA/QC	10days	Thu 26-08-20	Wed 26-09-02
42	Fall Field Work	5days	Mon 26-10-26	Fri 26-10-30
43	Fall Data Analysis & QA/QC	15days	Mon 26-11-02	Fri 26-11-20
44	Draft Annual Reporting & QA/QC	60days	Mon 26-11-23	Fri 27-02-12
45	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
46	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
47	**Site 700 - Middleville WDS**	**225days**	**Mon 26-05-18**	**Fri 27-03-26**
48	Spring Field Work	5days	Mon 26-05-18	Fri 26-05-22
49	Spring Data Analysis & QA/QC	15days	Mon 26-05-25	Fri 26-06-12
50	Summer Field Work	3days	Mon 26-08-17	Wed 26-08-19
51	Summer Data Analysis & QA/QC	10days	Thu 26-08-20	Wed 26-09-02
52	Fall Field Work	5days	Mon 26-10-26	Fri 26-10-30
53	Fall Data Analysis & QA/QC	15days	Mon 26-11-02	Fri 26-11-20
54	Draft Annual Reporting & QA/QC	60days	Mon 26-11-23	Fri 27-02-12
55	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
56	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
57	**Site 800 - Flower Station WDS**	**225days**	**Mon 26-05-18**	**Fri 27-03-26**
58	Spring Field Work	5days	Mon 26-05-18	Fri 26-05-22
59	Spring Data Analysis & QA/QC	15days	Mon 26-05-25	Fri 26-06-12
60	Fall Field Work	5days	Mon 26-10-26	Fri 26-10-30
61	Fall Data Analysis & QA/QC	15days	Mon 26-11-02	Fri 26-11-20
62	Draft Annual Reporting & QA/QC	60days	Mon 26-11-23	Fri 27-02-12
63	Township Review Period	15days	Mon 27-02-15	Fri 27-03-05
64	Final Annual Reporting	15days	Mon 27-03-08	Fri 27-03-26
65	**Sampling, Analysis, and Reporting - 2027 Monitoring Year**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
66	**Site 200 - Lanark Village WDS**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
67	Spring Field Work	5days	Mon 27-05-10	Fri 27-05-14
68	Spring Data Analysis & QA/QC	15days	Mon 27-05-17	Fri 27-06-04
69	Summer Field Work	3days	Mon 27-08-09	Wed 27-08-11
70	Summer Data Analysis & QA/QC	10days	Thu 27-08-12	Wed 27-08-25
71	Fall Field Work	5days	Mon 27-10-18	Fri 27-10-22
72	Fall Data Analysis & QA/QC	15days	Mon 27-10-25	Fri 27-11-12
73	Draft Annual Reporting & QA/QC	65days	Mon 27-11-15	Fri 28-02-11
74	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
75	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
76	**Site 400 - Robertson Lake WDS**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
77	Spring Field Work	5days	Mon 27-05-10	Fri 27-05-14
78	Spring Data Analysis & QA/QC	15days	Mon 27-05-17	Fri 27-06-04
79	Summer Field Work	3days	Mon 27-08-09	Wed 27-08-11
80	Summer Data Analysis & QA/QC	10days	Thu 27-08-12	Wed 27-08-25
81	Fall Field Work	5days	Mon 27-10-18	Fri 27-10-22
82	Fall Data Analysis & QA/QC	15days	Mon 27-10-25	Fri 27-11-12
83	Draft Annual Reporting & QA/QC	65days	Mon 27-11-15	Fri 28-02-11
84	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
85	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
86	**Site 500 - Snye Road WDS**	**230days**	**Mon 27-05-10**	**Fri 28-03-24**
87	Spring Field Work	5days	Mon 27-05-10	Fri 27-05-14
88	Spring Data Analysis & QA/QC	15days	Mon 27-05-17	Fri 27-06-04
89	Fall Field Work	5days	Mon 27-10-18	Fri 27-10-22
90	Fall Data Analysis & QA/QC	15days	Mon 27-10-25	Fri 27-11-12
91	Draft Annual Reporting & QA/QC	65days	Mon 27-11-15	Fri 28-02-11
92	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
93	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
94	**Site 600 - Watsons Corner WDS**	**225days**	**Mon 27-05-17**	**Fri 28-03-24**
95	Spring Field Work	5days	Mon 27-05-17	Fri 27-05-21
96	Spring Data Analysis & QA/QC	15days	Mon 27-05-24	Fri 27-06-11
97	Summer Field Work	3days	Mon 27-08-16	Wed 27-08-18
98	Summer Data Analysis & QA/QC	10days	Thu 27-08-19	Wed 27-09-01
99	Fall Field Work	5days	Mon 27-10-25	Fri 27-10-29
100	Fall Data Analysis & QA/QC	15days	Mon 27-11-01	Fri 27-11-19
101	Draft Annual Reporting & QA/QC	60days	Mon 27-11-22	Fri 28-02-11
102	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
103	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
104	**Site 700 - Middleville WDS**	**225days**	**Mon 27-05-17**	**Fri 28-03-24**
105	Spring Field Work	5days	Mon 27-05-17	Fri 27-05-21
106	Spring Data Analysis & QA/QC	15days	Mon 27-05-24	Fri 27-06-11
107	Summer Field Work	3days	Mon 27-08-16	Wed 27-08-18
108	Summer Data Analysis & QA/QC	10days	Thu 27-08-19	Wed 27-09-01
109	Fall Field Work	5days	Mon 27-10-25	Fri 27-10-29
110	Fall Data Analysis & QA/QC	15days	Mon 27-11-01	Fri 27-11-19
111	Draft Annual Reporting & QA/QC	60days	Mon 27-11-22	Fri 28-02-11
112	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
113	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
114	**Site 800 - Flower Station WDS**	**225days**	**Mon 27-05-17**	**Fri 28-03-24**
115	Spring Field Work	5days	Mon 27-05-17	Fri 27-05-21
116	Spring Data Analysis & QA/QC	15days	Mon 27-05-24	Fri 27-06-11
117	Fall Field Work	5days	Mon 27-10-25	Fri 27-10-29
118	Fall Data Analysis & QA/QC	15days	Mon 27-11-01	Fri 27-11-19
119	Draft Annual Reporting & QA/QC	60days	Mon 27-11-22	Fri 28-02-11
120	Township Review Period	15days	Mon 28-02-14	Fri 28-03-03
121	Final Annual Reporting	15days	Mon 28-03-06	Fri 28-03-24
122	**Sampling, Analysis, and Reporting - 2028 Monitoring Year**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
123	**Site 200 - Lanark Village WDS**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
124	Spring Field Work	5days	Mon 28-05-08	Fri 28-05-12
125	Spring Data Analysis & QA/QC	15days	Mon 28-05-15	Fri 28-06-02
126	Summer Field Work	3days	Mon 28-08-07	Wed 28-08-09
127	Summer Data Analysis & QA/QC	10days	Thu 28-08-10	Wed 28-08-23
128	Fall Field Work	5days	Mon 28-10-23	Fri 28-10-27
129	Fall Data Analysis & QA/QC	15days	Mon 28-10-30	Fri 28-11-17
130	Draft Annual Reporting & QA/QC	65days	Mon 28-11-20	Fri 29-02-16
131	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
132	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
133	**Site 400 - Robertson Lake WDS**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
134	Spring Field Work	5days	Mon 28-05-08	Fri 28-05-12
135	Spring Data Analysis & QA/QC	15days	Mon 28-05-29	Fri 28-06-16
136	Summer Field Work	3days	Mon 28-08-07	Wed 28-08-09
137	Summer Data Analysis & QA/QC	10days	Thu 28-08-10	Wed 28-08-23
138	Fall Field Work	5days	Mon 28-10-23	Fri 28-10-27
139	Fall Data Analysis & QA/QC	15days	Mon 28-10-30	Fri 28-11-17
140	Draft Annual Reporting & QA/QC	65days	Mon 28-11-20	Fri 29-02-16
141	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
142	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
143	**Site 500 - Snye Road WDS**	**235days**	**Mon 28-05-08**	**Fri 29-03-30**
144	Spring Field Work	5days	Mon 28-05-08	Fri 28-05-12
145	Spring Data Analysis & QA/QC	15days	Mon 28-05-29	Fri 28-06-16
146	Fall Field Work	5days	Mon 28-10-23	Fri 28-10-27



Task Split Meetings / Milestones Summary Project Summary Deadline

Preliminary Project Schedule

ID	Task Name	Duration	Start	Finish
147	Fall Data Analysis & QA/QC	15days	Mon 28-10-30	Fri 28-11-17
148	Draft Annual Reporting & QA/QC	65days	Mon 28-11-20	Fri 29-02-16
149	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
150	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
151	**Site 600 - Watsons Corner WDS**	**230days**	**Mon 28-05-15**	**Fri 29-03-30**
152	Spring Field Work	5days	Mon 28-05-15	Fri 28-05-19
153	Spring Data Analysis & QA/QC	15days	Mon 28-05-22	Fri 28-06-09
154	Summer Field Work	3days	Mon 28-08-14	Wed 28-08-16
155	Summer Data Analysis & QA/QC	10days	Thu 28-08-17	Wed 28-08-30
156	Fall Field Work	5days	Mon 28-10-30	Fri 28-11-03
157	Fall Data Analysis & QA/QC	15days	Mon 28-11-06	Fri 28-11-24
158	Draft Annual Reporting & QA/QC	60days	Mon 28-11-27	Fri 29-02-16
159	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
160	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
161	**Site 700 - Middleville WDS**	**230days**	**Mon 28-05-15**	**Fri 29-03-30**
162	Spring Field Work	5days	Mon 28-05-15	Fri 28-05-19
163	Spring Data Analysis & QA/QC	15days	Mon 28-06-05	Fri 28-06-23
164	Summer Field Work	3days	Mon 28-08-14	Wed 28-08-16
165	Summer Data Analysis & QA/QC	10days	Thu 28-08-17	Wed 28-08-30
166	Fall Field Work	5days	Mon 28-10-30	Fri 28-11-03
167	Fall Data Analysis & QA/QC	15days	Mon 28-11-06	Fri 28-11-24
168	Draft Annual Reporting & QA/QC	60days	Mon 28-11-27	Fri 29-02-16
169	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
170	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
171	**Site 800 - Flower Station WDS**	**230days**	**Mon 28-05-15**	**Fri 29-03-30**
172	Spring Field Work	5days	Mon 28-05-15	Fri 28-05-19
173	Spring Data Analysis & QA/QC	15days	Mon 28-06-05	Fri 28-06-23
174	Fall Field Work	5days	Mon 28-10-30	Fri 28-11-03
175	Fall Data Analysis & QA/QC	15days	Mon 28-11-06	Fri 28-11-24
176	Draft Annual Reporting & QA/QC	60days	Mon 28-11-27	Fri 29-02-16
177	Township Review Period	15days	Mon 29-02-19	Fri 29-03-09
178	Final Annual Reporting	15days	Mon 29-03-12	Fri 29-03-30
179	**Sampling, Analysis, and Reporting - 2029 Monitoring Year**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
180	**Site 200 - Lanark Village WDS**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
181	Spring Field Work	5days	Mon 29-05-07	Fri 29-05-11
182	Spring Data Analysis & QA/QC	15days	Mon 29-05-14	Fri 29-06-01
183	Summer Field Work	3days	Mon 29-08-06	Wed 29-08-08
184	Summer Data Analysis & QA/QC	10days	Thu 29-08-09	Wed 29-08-22
185	Fall Field Work	5days	Mon 29-10-22	Fri 29-10-26
186	Fall Data Analysis & QA/QC	15days	Mon 29-10-29	Fri 29-11-16
187	Draft Annual Reporting & QA/QC	65days	Mon 29-11-19	Fri 30-02-15
188	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
189	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
190	**Site 400 - Robertson Lake WDS**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
191	Spring Field Work	5days	Mon 29-05-07	Fri 29-05-11
192	Spring Data Analysis & QA/QC	15days	Mon 29-05-28	Fri 29-06-15
193	Summer Field Work	3days	Mon 29-08-06	Wed 29-08-08
194	Summer Data Analysis & QA/QC	10days	Thu 29-08-09	Wed 29-08-22
195	Fall Field Work	5days	Mon 29-10-22	Fri 29-10-26
196	Fall Data Analysis & QA/QC	15days	Mon 29-10-29	Fri 29-11-16
197	Draft Annual Reporting & QA/QC	65days	Mon 29-11-19	Fri 30-02-15
198	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
199	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
200	**Site 500 - Snye Road WDS**	**235days**	**Mon 29-05-07**	**Fri 30-03-29**
201	Spring Field Work	5days	Mon 29-05-07	Fri 29-05-11
202	Spring Data Analysis & QA/QC	15days	Mon 29-05-28	Fri 29-06-15
203	Fall Field Work	5days	Mon 29-10-22	Fri 29-10-26
204	Fall Data Analysis & QA/QC	15days	Mon 29-10-29	Fri 29-11-16
205	Draft Annual Reporting & QA/QC	65days	Mon 29-11-19	Fri 30-02-15
206	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
207	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
208	**Site 600 - Watsons Corner WDS**	**230days**	**Mon 29-05-14**	**Fri 30-03-29**
209	Spring Field Work	5days	Mon 29-05-14	Fri 29-05-18
210	Spring Data Analysis & QA/QC	15days	Mon 29-05-28	Fri 29-06-15
211	Summer Field Work	3days	Mon 29-08-13	Wed 29-08-15
212	Summer Data Analysis & QA/QC	10days	Thu 29-08-16	Wed 29-08-29
213	Fall Field Work	5days	Mon 29-10-29	Fri 29-11-02
214	Fall Data Analysis & QA/QC	15days	Mon 29-11-05	Fri 29-11-23
215	Draft Annual Reporting & QA/QC	60days	Mon 29-11-26	Fri 30-02-15
216	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
217	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
218	**Site 700 - Middleville WDS**	**230days**	**Mon 29-05-14**	**Fri 30-03-29**
219	Spring Field Work	5days	Mon 29-05-14	Fri 29-05-18
220	Spring Data Analysis & QA/QC	15days	Mon 29-06-04	Fri 29-06-22
221	Summer Field Work	3days	Mon 29-08-13	Wed 29-08-15
222	Summer Data Analysis & QA/QC	10days	Thu 29-08-16	Wed 29-08-29
223	Fall Field Work	5days	Mon 29-10-29	Fri 29-11-02
224	Fall Data Analysis & QA/QC	15days	Mon 29-11-05	Fri 29-11-23
225	Draft Annual Reporting & QA/QC	60days	Mon 29-11-26	Fri 30-02-15
226	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
227	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
228	**Site 800 - Flower Station WDS**	**230days**	**Mon 29-05-14**	**Fri 30-03-29**
229	Spring Field Work	5days	Mon 29-05-14	Fri 29-05-18
230	Spring Data Analysis & QA/QC	15days	Mon 29-06-04	Fri 29-06-22
231	Fall Field Work	5days	Mon 29-10-29	Fri 29-11-02
232	Fall Data Analysis & QA/QC	15days	Mon 29-11-05	Fri 29-11-23
233	Draft Annual Reporting & QA/QC	60days	Mon 29-11-26	Fri 30-02-15
234	Township Review Period	15days	Mon 30-02-18	Fri 30-03-08
235	Final Annual Reporting	15days	Mon 30-03-11	Fri 30-03-29
236	**Sampling, Analysis, and Reporting - 2030 Monitoring Year**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
237	**Site 200 - Lanark Village WDS**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
238	Spring Field Work	5days	Mon 30-05-06	Fri 30-05-10
239	Spring Data Analysis & QA/QC	15days	Mon 30-05-13	Fri 30-05-31
240	Summer Field Work	3days	Mon 30-08-05	Wed 30-08-07
241	Summer Data Analysis & QA/QC	10days	Thu 30-08-08	Wed 30-08-21
242	Fall Field Work	5days	Mon 30-10-21	Fri 30-10-25
243	Fall Data Analysis & QA/QC	15days	Mon 30-10-28	Fri 30-11-15
244	Draft Annual Reporting & QA/QC	65days	Mon 30-11-18	Fri 31-02-14
245	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
246	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
247	**Site 400 - Robertson Lake WDS**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
248	Spring Field Work	5days	Mon 30-05-06	Fri 30-05-10
249	Spring Data Analysis & QA/QC	15days	Mon 30-05-27	Fri 30-06-14
250	Summer Field Work	3days	Mon 30-08-05	Wed 30-08-07
251	Summer Data Analysis & QA/QC	10days	Thu 30-08-08	Wed 30-08-21
252	Fall Field Work	5days	Mon 30-10-21	Fri 30-10-25
253	Fall Data Analysis & QA/QC	15days	Mon 30-10-28	Fri 30-11-15
254	Draft Annual Reporting & QA/QC	65days	Mon 30-11-18	Fri 31-02-14
255	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
256	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
257	**Site 500 - Snye Road WDS**	**235days**	**Mon 30-05-06**	**Fri 31-03-28**
258	Spring Field Work	5days	Mon 30-05-06	Fri 30-05-10
259	Spring Data Analysis & QA/QC	15days	Mon 30-05-27	Fri 30-06-14
260	Fall Field Work	5days	Mon 30-10-21	Fri 30-10-25
261	Fall Data Analysis & QA/QC	15days	Mon 30-10-28	Fri 30-11-15
262	Draft Annual Reporting & QA/QC	65days	Mon 30-11-18	Fri 31-02-14
263	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
264	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
265	**Site 600 - Watsons Corner WDS**	**230days**	**Mon 30-05-13**	**Fri 31-03-28**
266	Spring Field Work	5days	Mon 30-05-13	Fri 30-05-17
267	Spring Data Analysis & QA/QC	15days	Mon 30-05-27	Fri 30-06-14
268	Summer Field Work	3days	Mon 30-08-12	Wed 30-08-14
269	Summer Data Analysis & QA/QC	10days	Thu 30-08-15	Wed 30-08-28
270	Fall Field Work	5days	Mon 30-10-28	Fri 30-11-01
271	Fall Data Analysis & QA/QC	15days	Mon 30-11-04	Fri 30-11-22
272	Draft Annual Reporting & QA/QC	60days	Mon 30-11-25	Fri 31-02-14
273	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
274	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
275	**Site 700 - Middleville WDS**	**230days**	**Mon 30-05-13**	**Fri 31-03-28**
276	Spring Field Work	5days	Mon 30-05-13	Fri 30-05-17
277	Spring Data Analysis & QA/QC	15days	Mon 30-06-03	Fri 30-06-21
278	Summer Field Work	3days	Mon 30-08-12	Wed 30-08-14
279	Summer Data Analysis & QA/QC	10days	Thu 30-08-15	Wed 30-08-28
280	Fall Field Work	5days	Mon 30-10-28	Fri 30-11-01
281	Fall Data Analysis & QA/QC	15days	Mon 30-11-04	Fri 30-11-22
282	Draft Annual Reporting & QA/QC	60days	Mon 30-11-25	Fri 31-02-14
283	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
284	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28
285	**Site 800 - Flower Station WDS**	**230days**	**Mon 30-05-13**	**Fri 31-03-28**
286	Spring Field Work	5days	Mon 30-05-13	Fri 30-05-17
287	Spring Data Analysis & QA/QC	15days	Mon 30-06-03	Fri 30-06-21
288	Fall Field Work	5days	Mon 30-10-28	Fri 30-11-01
289	Fall Data Analysis & QA/QC	15days	Mon 30-11-04	Fri 30-11-22
290	Draft Annual Reporting & QA/QC	60days	Mon 30-11-25	Fri 31-02-14
291	Township Review Period	15days	Mon 31-02-17	Fri 31-03-07
292	Final Annual Reporting	15days	Mon 31-03-10	Fri 31-03-28



Task · Split · Meetings / Milestones · Summary · Project Summary · Deadline

BURNSIDE

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Appendix D

Reference Project Details

BURNSIDE

Long Term Monitoring Programs

Job Type	Job Name	Start of Monitoring	Reporting	Type
Water Quality				
	Former Kitchener Landfill	2004	Semi-Annual	ECA
	Amaranth Landfill	1993	Annual	C of A
	East Luther Landfill	1993	Annual	C of A
	Mulmur Landfill	1999	Annual	C of A
	Mono Landfill	2000	Annual	C of A
	Elma Landfill	2003	Annual	C of A
	Listowel Landfill	2003	Annual	C of A
	Wallace Landfill	2003	Annual	C of A
	Grand Highlands	2007	Annual	C of A
	Ashfield Landfill	1989	Biennial	ECA
	West Wawanosh Landfill	1988	Annual	ECA
	Morris Landfill	1993	Annual	ECA
	East Wawanosh Landfill	1988	Biennial	ECA
	Wingham Landfill	1991	Triennial	ECA
	Blyth-Hullett Landfill	1991	Annual	ECA
	Blanshard Landfill	2007	Annual	ECA
	Downie Landfill	2007	Annual	ECA
Public Sector PTTW Municipal Wells				
	Region of Waterloo	2004	Biennial	PTTW
	Durham Region	2012	Annual	PTTW
	Arthur	1998	Annual	PTTW
	Mount Forest	2000	Annual	PTTW
	Cardinal Woods	2000	Annual	PTTW
	Shallow Lake	2001	Annual	PTTW
	Rockwood	2002	Annual	PTTW
	Shelburne	2002	Annual	PTTW
	Clifford	2003	Annual	PTTW
	Drayton	2003	Annual	PTTW
	Moorefield	2004	Annual	PTTW
	Mansfield	2004	Annual	PTTW
	Huntington	2004	Annual	PTTW
	Erin Brook	2004	Annual	PTTW
	Wellington North	2005	Annual	MOE
	Minto Monitoring	2007	Annual	PTTW

Job Type	Job Name	Start of Monitoring	Reporting	Type
Golf Course				
	Granite Ridge	1998	Annual	PTTW
	Cherry Hill	1999	Annual	PTTW
	Brookfield	2000	Annual	PTTW
	Pheasant Run	2001	Annual	C of A
	Timber Ridge	2001	Annual	PTTW
	Toronto Ladies	2004	Annual	PTTW
	Thornhill	2004	Annual	PTTW
	Uplands	2004	Annual	PTTW
	Oakdale	2005	Annual	PTTW
	Baxter Creek	2006	Annual	PTTW
	Bushwoods	2006	Annual	PTTW
	Bayview	2006	Annual	PTTW
	The Country Club	2006	Annual	PTTW
	The Hunt Club	2006	Annual	PTTW
	Carruthers Creek	2006	Annual	PTTW
	Hornby Glen	2006	Annual	PTTW
	Carrying Place	2007	Bi Annual	PTTW
	Wyndance	2007	Annual	PTTW
	Beacon Hall	2007	Annual	PTTW
	Elmira	2013	Annual	PTTW
Other				
	Bio Bob's	2003	Annual	C of A
	Mohawk	2007	Annual	PTTW
	Zander Sod Co.	2007		PTTW

Region of Waterloo Water Quantity and Quality Monitoring Program

The Regional Municipality of Waterloo (Region) is the largest municipal user of groundwater in Canada with an average daily production of about 25 million gallons per day (1308 L/s) in 2004, supplied to over 425,000 residents. Municipal water for the Region is provided by an integrated system of groundwater and surface water supplies.

In 1994, the Region began implementing a comprehensive Water Resources Protection Strategy (WRPS) to limit the risk to municipal water supplies from historic, existing and future land uses. Groundwater level monitoring is an integral component of the WRPS and is required as part of the Permits to Take Water (PTTW) issued by the MECP for the groundwater supply system.

The scope of work for the GLMP includes collecting and recording water level measurements in monitoring wells, production wells and data management, assessment and reporting. All data is input into the Region's Water Resources Analysis System database (WRAS), on a regular basis. The Region initially retained R.J. Burnside & Associates Limited (Burnside) in 2004 to assist in data collection, management and assessment. At the time, the program involved manual water level measurements from about 270 locations. The program has continued to expand and by the end of 2014 Burnside was collecting monthly water levels at 500 locations. In addition, Burnside collects water quality samples from about 120 wells 2 times per year. Wells are inspected on a monthly basis and repairs made as required. Copies of the well inspection database are provided to the MECP if requested.

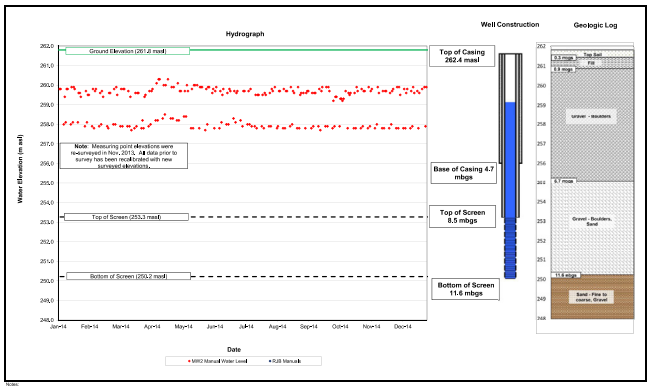
In order to comply with conditions of the Permits to Take Water for the various well fields, the Region is required to submit water level monitoring reports to the MECP on a biennial basis. In 2014, Burnside submitted 33 individual well field reports to the MECP. The results of monitoring at the remaining 14 well fields were documented in a single large report.

Burnside's ongoing services allow the Region to monitor the effcts of pumping on water resources, while providing an overall picture of water quality in the Region, and an indication of any changes in well performance.

Services Provided

Water Level Monitoring & Sampling
Monitor Well Maintenance
Liaison with the Public
Preparation and Submission of Reports to the MECP to Meet PTTW

Figure B-6
Well MW2 Summary
Community of Sunderland



Durham Groundwater Monitoring Program

The Regional Municipality of Durham (Durham Region) lies immediately to the east of Toronto and encompasses approximately 2,590 square km with a population of about 660,000 people (2011). Eight groundwater based water supply systems utilizing 27 municipal production wells provide water to the communities of Cannington, Sunderland, Orono,, Blackstock, Greenbank, Port Perry, Uxbridge and the Uxbridge Industrial Park.

Durham Region carries out a monitoring program which includes water level measurement and the collection of water quality samples from a number of monitoring wells located near the municipal wells. A portion of the program is mandatory to comply with regulatory conditions of the permit to take water and part of the program is voluntary and is intended to protect the quality/quantity of water in the municipal aquifers. R. J. Burnside & Associates Limited (Burnside) was retained by the Region in 2012 to carry out the monitoring program on their behalf. Currently there are about 115 monitoring wells which are visited monthly by Burnside staff to obtain water levels. Approximately 65 of the wells are equipped with electronic data loggers. There are approximately 50 wells that are sampled semi-annually as part of the water quality monitoring program. The water level data is entered into a field tablet and the data used to update hydrographs on a monthly basis. The Region is also provided with a monthly well inspection report and any damaged wells are repaired as required. Burnside produces the mandatory PTTW reports required for each of the municipal well fields for submission to the MECP. A water quality report is also prepared for each well field for use by Durham Region Staff.

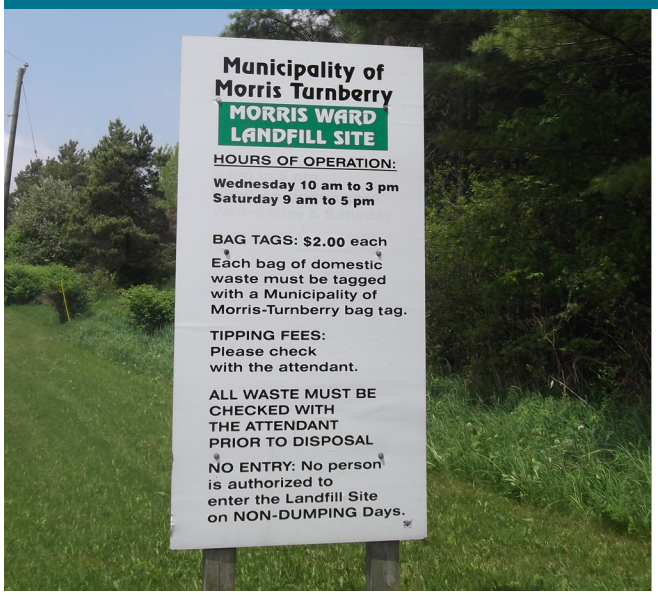
Services Provided

Water level monitoring

Water quality sampling

Monitor well maintenance

Preparation and submission of reports to the MECP to meet PTTW requirements



Landfill Monitoring – Municipality of Morris-Turnberry

The Morris Landfill is located between Belgrave and Brussels, Ontario, in the Municipality of Morris-Turnberry. The site is owned by the municipality and is currently active. It is located in a region of predominantly agricultural land use. The site exists on an ice-contact stratified drift deposit lying between glaciofluvial outwash sand west of the site and Elma Till east of the site.

The Environmental Compliance Approval (ECA) dictates the monitoring program for the Site; which consists of sampling, field data collection, data processing, analysis and reporting. Landfill sampling occurs twice per year and includes 20 overburden monitoring wells, 6 bedrock wells, a leachate well, 5 private wells, 5 surface water stations and 6 landfill gas monitors. The monitoring wells range in depth from 3.7 m to 32.6 m. The surface water monitoring network consists of 4 locations along the McNeil Drain and 1 at a spring east of the site. Flow measurements are taken at 2 of the surface water monitoring locations.

R.J. Burnside & Associates Limited (Burnside) continues to provide the Municipality of Morris-Turnberry with technical expertise in all aspects of landfill monitoring, operations and design while adhering to their budget. Very little turnover of Burnside project staff has resulted in a stable, long-term relationship with the Municipality. They are kept informed of any unexpected occurrences throughout the project to prevent surprises. Excellent project coordination and management skills have ensured compliance with MECP reporting requirements, resulting in a good working relationship between project staff and the MECP.

Services Provided

- Design and Implementation
- Project Management
- Test Pits
- Site Survey/Layout
- Remaining Capacity and Site Life Calculations
- Strategic Planning
- Design and Operations Plan
- Field Monitoring Program
- Monitoring Well Maintenance and Replacement
- Water Quality, Surface Water Flow and Landfill Gas Data
- Geologic Cross-sections
- Preparation of Annual Reports for Submission to the MOE
- MOE Correspondence
- Keeping the Client informed of Landfill Performance and Operations
- Landfill Extension (Opening New Fill Area, Closing existing Fill Area, Construction Supervision)
- Hydrogeological Study (for future site development)
- Landfill Liability Assessment

Landfill Monitoring – Township of Perth South

Burnside currently provides services for 2 landfills in Perth County, Ontario – Blanshard and Downie. Owned by the Township of Perth South, the Blanshard Landfill is located near Rannoch, Ontario and the Downie Landfill is located just outside of Sebringville, Ontario. Blanshard and Downie are both located in a region of predominantly agricultural land use. Blanshard exists on the Mitchell Moraine consisting of a clayey to silty till with the underlying bedrock consisting of limestone and Downie is located on Stratford Till and lacustrine deposits consisting of sandy, silt till and silt and clay, respectively. The underlying bedrock consists of limestone and dolostone.

The monitoring programs carried out for these 2 landfills are based on their respective ECA consisted of sampling, field data collection, data processing, analysis and reporting. Sampling occurs 3 times per year at Downie and only twice per year at Blanshard. Combined, the monitoring network consists of 26 overburden monitoring wells, 3 drive points for measuring hydraulic head at the Summerville Drain, 2 surface water and 15 gas monitoring locations (2 buildings and 13 well headspaces). Flow measurements were taken at both surface water locations.

Burnside provides the Township of Perth South with technical expertise in all aspects of landfill monitoring, operations and design while adhering to their budget. Consistent project coordination and management skills have ensured compliance with MOE reporting requirements, resulting in a good working relationship between project staff and the MOE with the client.

Services Provided:

- Design and Implementation
- Project Management
- Test Pits
- Site Surveying/Layout
- Remaining Capacity and Site Life Calculations
- Field Monitoring Program
- Monitoring Well Maintenance and Replacement
- Water Quality, Surface Water Flow and Landfill Gas Data
- Geologic Cross-sections
- Landfill Operators Training
- Preparation of Annual Reports for Submission to the MOE
- MOE Correspondence
- Keeping the Client informed of Landfill Performance and Operations
- Strategic Planning
- Design and Operations Plan (opening new fill area, closing existing fill area)Landfill Liability Assessment
- Closure Plan and Design

Landfill Monitoring - Township of Ashfield-Colborne-Wawanosh (ACW)

R.J. Burnside & Associates Limited (Burnside) currently provides services at the Ashfield, West Wawanosh and Old Ashfield landfills. The sites are owned by the Township of ACW, with only Ashfield currently being active.

The Nine Mile River flows through the southwest corner of Ashfield and the site is located within a former glacial spillway. West Wawanosh is surrounded by wetlands and to the west, Mud Lake; the wetlands are part of the St. Augustine Wetland Complex which is a provincially significant wetland. Old Ashfield stopped receiving waste in 1985.

The monitoring programs are carried out based on each site's Environmental Compliance Approval (ECA); they all consist of sampling twice per year, field data collection, data processing, analysis and reporting. In total, the monitoring network for the 3 sites consists of 34 overburden monitoring wells, 1 bedrock well, 2 leachate wells, 7 surface water locations and 9 landfill gas monitors.

Burnside continues to provide the Township of ACW with technical expertise in all aspects of landfill monitoring, operations and design while adhering to their budget. Very little turnover of Burnside project staff has resulted in a stable, long-term relationship with ACW. The Township is kept informed of any unexpected occurrences throughout the project to prevent surprises. Excellent project coordination and management skills have ensured compliance with MOE reporting requirements, resulting in a good working relationship between project staff and the MOE.

Services Provided

- Design and Implementation
- Test Pits
- Site Surveying/Layout
- Remaining Capacity and Site Life Calculations
- Strategic Planning
- Design and Operations Plan
- Recapture of Full Site Capacity
- Field Monitoring Program
- Monitoring Well Maintenance and Replacement
- Assessment of Leachate Breakouts and Remediation
- Water Quality, Surface Water Flow
- Landfill Gas Data
- Geologic Cross-sections
- Preparation of Annual Reports for Submission to the MOE
- MOE Correspondence
- Trigger Mechanism and Contingency Plan
- Remediation Action Plan
- Determining Reasonable Contamination Attenuation Zone (CAZ)
- Keeping Client Informed of Landfill Performance and Operations
- Hydrogeological Study
- Closure Plan and Design

Morris Landfill Upgrades

R.J. Burnside & Associates Limited (Burnside) was responsible for permitting and the development of a Design and Operations Report for upgrades at the Morris Landfill site, located near Brussels in the Municipality of Morris-Turnberry. The landfill operators faced many challenges. The existing landfill footprint was nearing capacity, and a new footprint could not be developed because of the many conditions related to site hydrogeology specified in the Certificate of Approval. The existing waste cell continued to be used, which eventually developed steep sides and exposed waste.

Burnside was retained to assess the hydrogeological conditions of the new landfill footprint and to enter into negotiations with the MECP for approval. A new Design and Operation Report was developed. It was found that by adjusting the layout, the hydrogeological conditions could be accommodated within the design. Approval was granted, and the project team developed detailed design plans and a tender document for the closure of the existing cell and the development of a new engineered cell and a stormwater collection system.

In 2012, Burnside undertook the tendering of the contract and contract administration during construction. The former waste cell is now stable and closed and the Municipality is using the new cell.

With a much better landfill design and environmental protection in place, the Municipality is better able to continue use of the site, minimizing the potential for health and environmental impacts.

Services Provided

Design
Tendering
Contract Administration

Landfill Monitoring – North Huron

R.J. Burnside & Associates Limited (Burnside) currently provides services for two landfills in North Huron; East Wawanosh and Wingham. The East Wawanosh Landfill is located between Auburn and Blyth, Ontario and the Wingham Landfill is just outside of Wingham, Ontario; both in Huron County. Both sites are owned by North Huron and are currently active. They are both located in a region of predominantly agricultural land use. East Wawanosh exists on glaciofluvial outwash consisting of gavel and gravelly sand with the underlying bedrock consisting of dolostone. Wingham is located on ice-contact stratified drift consisting of sand, gravel, silt and till. The underlying bedrock consists of limestone.

The monitoring programs carried out for these 2 landfills are based on their respective C of A which consists of sampling, field data collection, data processing, analysis and reporting. Sampling occurs twice per year. Combined, their monitoring networks consist of 33 overburden monitoring wells, 2 bedrock wells, 2 leachate wells, 7 private wells, 3 surface water locations and 11 landfill gas monitors. 3 buildings and 6 monitoring well headspaces are also monitored for methane gas. The evaluation and determination of site usage, including rate of fill, remaining capacity and placement of intermediate and final cover is also required for these sites.

Burnside continues to provide the Township of North Huron with technical expertise in all aspects of landfill monitoring, operations and design while adhering to their budget. Very little turnover of Burnside project staff has resulted in a stable, long-term relationship with the Township. They are kept informed of any unexpected occurrences throughout the project to prevent surprises. Excellent project coordination and management skills have ensured compliance with MOE reporting requirements, resulting in a good working relationship between project staff and the MOE.

Services Provided

- Design and Implementation
- Project Management
- Site Surveying/Layout
- Remaining Capacity and Site Life Calculations
- Field Monitoring Program
- Monitoring Well Maintenance and Replacement
- Assessment of Leachate Breakouts and Remediation
- Water Quality and Landfill Gas Data
- Geologic Cross-Sections
- Preparation of Annual Reports for Submission to the Ministry of the Environment
- MOE Correspondence
- Keeping the Client informed of Landfill Performance and Operations
- Design and Operations Plan
- Site Inspections
- Landfill Operators Training

Blanshard Landfill Upgrades

R.J. Burnside & Associates Limited (Burnside) was responsible for design and development of the landfill upgrades at the Blanshard Landfill site. The Township was interested in improving the overall appearance and functionality of the landfill.

The study team undertook the detailed design. Approval was granted, and the project team developed detailed design plans and a tender document for the development of the upgrades. The upgrades included a public drop off area, attendant's trailer, improved stormwater collection and better traffic flow.

In 2013/2014, Burnside undertook the tendering of the contract and contract administration during construction.

With a much better landfill design and environmental protection in place, the Township is better able to continue use of the site, minimizing the potential for health and environmental impacts.

Services Provided

Detailed Design
Tender Development
Construction Administration
Construction

Landfill Monitoring – Howick Landfill

The Howick Landfill is located on Lot 24, Concession 8, in the Township of Howick just outside of Fordwich, Ontario. The site is owned by the municipality and is currently active. The site exists on a drumlinized till plain intersected by numerous spillways and kame moraines. There are low-lying wetlands to the east, west and south of the landfill property.

The monitoring program is based on the requirements of the existing C of A and consists of sampling, field data collection, data processing, analysis and reporting. Landfill sampling occurs twice per year. The groundwater monitoring network includes 24 overburden monitoring wells ranging in depth from 4.6 m to 25 m and 1 leachate well. The surface water monitoring network consists of 2 surface water bodies; there are 6 landfill gas monitors on-site to assess the migration of landfill gas. The evaluation and determination of site usage, including rate of fill, remaining capacity and placement of intermediate and final cover is also required for this site.

R.J. Burnside & Associates Limited (Burnside) continues to provide the Township of Howick with technical expertise in all aspects of landfill monitoring, operations and design while adhering to their budget. Very little turnover of Burnside project staff has resulted in a stable, long-term relationship with the Township. They are kept informed of any unexpected occurrences throughout the project to prevent surprises. Excellent project coordination and management skills have ensured compliance with MOE reporting requirements, resulting in a good working relationship between project staff and the MOE.

Services Provided

Design and Implementation
Project Management
Site Surveying/Layout
Remaining Capacity and Site Life Calculations
Field Monitoring Program
Monitoring Well Maintenance and Replacement
Water Quality and Landfill Gas Data
Geologic Cross-sections
Preparation of Annual Reports for Submission to the MOE
MOE Correspondence
Keeping the Client Informed of Landfill Performance and Operations

Landfill Monitoring – Blyth-Hullet Landfill

The Blyth-Hullet Landfill is located on Part of Lot 26, Concession 14, in the Municipality of Central Huron just outside of Blyth, Ontario. The site is owned by the municipality and is temporarily inactive. The site exists on ice-contact stratified drift within the Wawanosh Moraine. There is a permanent pond and an intermittent wooded wetland area present at the north corner of the landfill property. The Logue Municipal Drain runs east to west beyond the wooded wetland area.

The monitoring program is based on the requirements of the existing C of A and consists of sampling, field data collection, data processing, analysis and reporting. Landfill sampling occurs twice per year. The groundwater monitoring network includes 21 overburden monitoring wells ranging in depth from 3.1 m to 21 m, 7 drive points for measuring hydraulic head within the wetland and 1 private bedrock well. The surface water monitoring network consists of 7 sampling points throughout 3 surface water bodies and there are 5 landfill gas monitors on-site to assess the migration of landfill gas. The evaluation and management of off-site chloride contamination and subsequent wetland impact is also required for this site.

R.J. Burnside & Associates Limited (Burnside) continues to provide the Municipality of Central Huron with technical expertise in all aspects of landfill monitoring, operations and design while adhering to their budget. Very little turnover of Burnside project staff has resulted in a stable, long-term relationship with the Municipality. They are kept informed of any unexpected occurrences throughout the project to prevent surprises. Excellent project coordination and management skills have ensured compliance with MOE reporting requirements, resulting in a good working relationship between project staff and the MOE.

Services Provided

Design and Implementation
Project Management
Site Surveying
Remaining Capacity and Site Life Calculations
Field Monitoring Program
Monitoring Well Maintenance and Replacement
Water Quality, Surface Water Flow and Landfill Gas Data
Wetland and Amphibian Inventory
Geologic Cross-sections
Preparation of Annual Reports for Submission to the MOE
MOE Correspondence
Trigger Mechanism and Contingency Plan
Determining a reasonable Contamination Attenuation Zone (CAZ)
Keeping the Client informed of Landfill Performance and Operations

St. Marys Cell Development

R.J. Burnside & Associates Limited (Burnside) was responsible for design and development of the next cell at the St. Marys Landfill site. The landfill operators faced many challenges. As this was the final cell, the landfill required significant reconfiguration to accommodate the site facilities.

The study team undertook the detailed design. Approval was granted, and the project team developed detailed design plans and a tender document for the development of a new engineered cell and a stormwater collection system was completed. This included an improved residential drop off area and traffic flow.

In 2013, Burnside undertook the tendering of the contract and contract administration during construction. The former waste cell is now stable and closed and the Municipality is using the new cell.

With a much better landfill design and environmental protection in place, the Municipality is better able to continue use of the site, minimizing the potential for health and environmental impacts.

Services Provided

Detailed Design
Tender Development
Construction Administration
Construction

West Wawanosh Contaminant Attenuation Zone Development

The West Wawanosh landfill began accepting waste in the late 1970s. A monitoring well installed near the southern property line began to show increasing levels of chloride. The levels in this monitoring well fluctuated above and below the maximum concentration allowed at the property line by the MECP Reasonable Use Guideline (RUG). A second well was installed west of the impacted well and confirmed chloride levels above the allowable limit. The concentrations of the leachate indicators (chloride, conductivity and hardness) continued to rise indicating probable off-site movement of landfill leachate.

R.J. Burnside & Associates Limited (Burnside) assessed options for the Township including do nothing, pump and treat, cut off walls and land purchase. Based on this assessment, the Township elected to purchase lands to the west and south of the landfill site. The intention of this purchase was for the Township to retain the portion of land necessary for contaminant attenuation from the landfill site and sell off the balance.

Burnside was asked to provide comment on the area of lands which should be retained by the Township. In this regard, Burnside reviewed hydrogeological information, inspected the site and had meetings with the Township and Council. Our opinion is based on mitigation of landfill impacts, and did not consider economic factors such as re-sale value, which could be a function of usable woodlots, agricultural value of the lands, or environmental protection areas.

Reports were submitted to the MECP for comment. The MECP concurred that the approach of Burnside was reasonable. On the basis of this, the Township retained only lands necessary for contaminant attenuation. The Township completed all MECP documentation and lands became registered on title as Contaminant Attenuation Lands for the landfill.

The Township is now in compliance with respect to impacts associated with the landfill and with applicable regulations.

Services Provided

Environmental Guidance
Hydrogeological Assessment
Regulatory Assistance

MUNICIPALITY OF
North Perth
www.northperth.ca
A Community of Character
330 Wallace Ave. N., Listowel, ON N4W 1L3 Phone: 519-291-2950 Toll Free: 888-714-1993

March 23, 2021

To whom it may concern:

The Municipality of North Perth has utilized the services of R.J. Burnside & Associates Limited for many years – and decades before North Perth amalgamated from the Town of Listowel and the Townships of Elma and Wallace. However, this letter of reference relates to Burnside's work with North Perth for our post-amalgamation solid waste management needs.

North Perth first called upon Burnside to assist with an assessment of our three municipal landfills in 2002. That work optimized our waste disposal system operations, site liabilities and overall costs. Burnside recommended closing two sites and transitioning operations to the third. Burnside redesigned, received approvals and provided construction assistance for the three sites. The work included development of a public drop-off for all wastes including diversion of hazardous waste and waste electronics, and an organics composting facility. Through this work, North Perth has secured waste disposal capacity estimated to last beyond year 2090 at current rates.

Also beginning in 2002, Burnside began monitoring and completing annual assessments of our landfills as required by our provincial approvals. This has led to assistance with our financial statements for closure and post-closure landfill liabilities, addressing occasional Environmental Officer inspection requirements, and assisting with assessment / acceptance of potentially contaminated (or hazardous) wastes – among other efforts. Over the years, Burnside has also provided additional approvals, operations guidance and training assistance for our staff.

Burnside's long-history of involvement in North Perth's solid waste management system proven to be important to North Perth's successful operations. We rely on Burnside's key solid waste and hydrogeology staff, with their knowledge of our systems and extensive industry experience to provide guidance. With this history in mind, and knowing Burnside's commitment to its clients firsthand, I can confidently recommend them as an innovative and reliable partner for your project.

Mark Hackett
Manager of Environmental Services
519-292-2069

PERTH
HERITAGE + HEART

THE CORPORATION OF
THE TOWN OF PERTH
80 Gore Street East
Perth, Ontario K7H 1H9
Phone: (613) 267-3311
Fax: (613) 267-5635

Jamie Hollingsworth
R.J. Burnside & Associates Limited
1465 Pickering Parkway
Pickering, ON
L1V 7G7

Re: Letter of Recommendation

Dear Jamie,

Having worked with you and your Burnside colleagues for several years, I am pleased to provide this Letter of Recommendation in support of your business development efforts.

Since 2008, Burnside has provided solid waste engineering, hydrogeology, terrestrial and aquatic biology, air and noise, and stormwater management consulting services to the Town of Perth, completing extensive work for the municipality's landfill which has included:

- Design and operations permitting of our curbside organics and leaf & yard waste composting facility (2008).
- Preparation of an Employee Training Program and Operations Handbook (2013).
- Completion of an Environmental Assessment (EA) Screening process including:
    - hydrogeological,
    - natural heritage,
    - air and noise,
    - leachate management,
    - surface water controls.
- environmental mitigation and monitoring strategies to expand the site by 100,000 m^3 – about 18 years of capacity for the municipality (2017).
- Emergency Environmental Compliance Approvals (ECAs) to allow operation while completing the EA Screening process.
- Design & Operations Plan, including Environmental Monitoring and Contingency Plan to obtain Environmental Protection Act (EPA) and Ontario Water Resources Act (OWRA) approvals (2020).
- Annual monitoring and reporting for groundwater, surface water, landfill gas and operations, including toxicity and per- and polyfluoroalkyl substances (PFAS) testing (2016 to present).
- Detailed design and specifications for landfill remediation and expansion, purge well system upgrades, a leachate management system and stormwater management system (2017 – 2021).

- Species at Risk Act permitting, awareness training and incident response to allow construction (2017-2021).

Burnside has provided excellent support to the municipality in its Landfill Site operations in the areas of response, budgeting, and thoroughness. Most importantly, you attempt to minimize my efforts so I can address other municipal priorities. This is appreciated as municipal staffing is always constrained.

My experience with Burnside has been favourable in every aspect. This opinion is shared by my colleagues at the Town of Perth. On this basis I will continue to recommend R.J. Burnside & Associates Limited to my peers as your potential clients.

Respectfully,

Grant Machan CET
Director of Environmental Services
Town of Perth
gmachan@perth.ca

Aged to Perfection!

County of Brant Operations Department

Reference: E23

July 26, 2022

Mr. James R. (Jamie) Hollingsworth, P.Eng.
Technical Leader, Solid Waste
R.J. Burnside & Associates Limited
1465 Pickering Parkway
Pickering ON L1V 7G7

VIA EMAIL

Dear Jamie:

Re: Letter of Recommendation

Thank you for helping the County of Brant obtain our Environmental Assessment Act, Section 9 *Notice of Approval to Proceed with the Undertaking* for our Biggars Lane Landfill Expansion. Yourself, Jennifer Vandermeer, Avid Banihashemi, Philip Rowe, and numerous others on Burnside's team, provided guidance and completed this individual EA, by:

- Preparing the EA Technical Studies:
  - Geology & Hydrogeology
  - Surface Water
  - Transportation
  - Climate Change Considerations
  - Atmospheric Assessment (Emissions, Noise and Vibration)
  - Technical and Operational Considerations
  - Natural Environment (Terrestrial and Aquatic)
  - Economics
  - Land Use (Including Visual)
  - Leachate Treatment
  - Cultural and Heritage Resources (with ASI as a Sub-Consultant)
- Developing the *Biggars Lane Landfill Expansion Environmental Assessment Report*, and
- Consulting and negotiating with:
  - Members of the public
  - local, regional, provincial, and federal agencies
  - Indigenous communities

Throughout the process, Burnside has been responsive to the County's needs while mindful of our schedule and budget. Your work will serve the County of Brant's waste disposal needs for the next 30 years.

It's my pleasure to provide Burnside with this letter of recommendation. My experience with Burnside has been positive. I welcome your potential clients to contact me so I can share the County of Brant's positive experience and answer any questions they may have.

Yours truly,

Matthew D'Hondt, C.E.T.
Solid Waste/Wastewater Operations Manager
County of Brant

MD/MD/nd

cc file
A. Davidson, Director of Environmental Services

PUBLIC SECTOR REFORM
Making Barbados Work Better

GOVERNMENT OF BARBADOS
SEWERAGE & SOLID WASTE PROJECT UNIT
MINISTRY OF HEALTH
"MAXWELTON", COLLYMORE ROCK, ST. MICHAEL,
BARBADOS, WEST INDIES.

Solid Waste MANAGEMENT PROGRAMME

Phone: (246) 427-5910/11 **Facsimile:** (246) 426-2510 **Email:** solid@sunbeach.net

Ref. No. ----------
In replying the above number and date of this letter should be quoted

March 4, 2008

To Whom It May Concern:

This letter is to verify that the Government of Barbados, Ministry of Health Solid Waste Project Unit has and continues to rely upon the services of R.J. Burnside International Limited. This work began in 1998 when the Project Unit sought a team of internationally recognized experts to peer review the design and construction of the National Sanitary Landfill Site. Since this time, Burnside International has provided assistance with the site redesign, review of waste management planning issues, and assistance with waste composition studies, as well as spearheading CDM efforts related to our existing landfill at Mangrove Pond.

Most recently, Burnside International developed the Design, Build, Own, Operate request for proposals for the Solid Waste Management Centre at Vaucluse. They are currently assisting with technical issues related to the contract for this Centre. The Centre will provide waste sorting, composting, chemical waste storage and waste transfer for more than 1,000 tonnes per day of solid waste.

The Solid Waste Project Unit is very pleased with the experience and commitment shown by Burnside International in completing work for the Project Unit. We have no hesitation in recommending them for similar projects.

Regards

.....
RICARDO MARSHALL
Project Manager
Solid Waste Project Unit

ONTARIO CANADA
ST. MARYS

VIA MAIL & E-MAIL

June 16, 2016

James R. Hollingsworth, P.Eng.
Technical Leader, Solid Waste
R.J. Burnside & Associates Limited
1465 Pickering Parkway
Pickering, ON L1V 7G7

Dear Jamie,

RE: SOLID WASTE SERVICES WITHIN THE TOWN OF ST. MARYS

Based on a reputation of excellent solid waste management services, the Town of St. Marys sought Burnside's assistance for our own solid waste programs and projects. The working relationship between the Town and Burnside began in January 2013, and has included:

- Cell design, tendering and construction supervision at the St. Marys Landfill, including a new public drop-off area;
- Assisting with ECA amendments to increase capacities and the service area for our electronics and hazardous materials depot;
- Improving operational effectiveness, reducing operating costs and preserving our landfill's disposal capacity through training Town staff; and
- Preparing annual monitoring and operations reports.

However, the main component of Burnside's work with the Town has been to develop our *Future Solid Waste Disposal Needs Environmental Assessment* (EA). During initial discussions, Burnside noted concerns with our previously submitted Terms of Reference (ToR) which was subsequently and separately identified by the Ministry of Environment and Climate Change (MOECC). It was at this point that Burnside began working with the Town, revising our ToR, implementing additional consultation, and ultimately securing approval. Since then, Burnside has undertaken the EA work, completing numerous studies and assessments as well as stakeholder consultation.

Burnside's work for the Town of St. Marys has been appreciated, particularly your attention to detail, consideration of budgets, timely service and thoughtful, knowledgeable guidance. We feel our needs and concerns are shared by Burnside, which has provided a positive experience and I am happy to recommend Burnside to others.

Sincerely,
TOWN OF ST. MARYS – PUBLIC WORKS DEPARTMENT

Dave Blake, C.E.T.
Supervisor of Environmental Services

PUBLIC WORKS DEPARTMENT – ENVIRONMENTAL SERVICES
408 JAMES STREET SOUTH, P.O. BOX 998, ST. MARYS, ON N4X 1B6

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www.rjburnside.com