

THE CORPORATION OF THE TOWNSHIP OF HORTON

TRANSPORTATION & ENVIRONMENTAL SERVICES

February 3, 2021 8:30 a.m. Via Zoom

NOTE: This meeting will be sparsely attended, due to social distancing protocols that have been recommended by the federal and provincial governments. Members of Council, Committee, and Staff will call in to the meeting and take part via video conference. Members of the Public, Media and other staff are requested not to attend. However, the meeting will be recorded with a replay stored on the Township's website for future viewing. Please contact the CAO/Clerk if you have any questions or require additional information.

1.	Call to Order	
2.	Declaration of Pecuniary Interest	
3.	Minutes from Previous Meeting:	
	i. December 2, 2020	PG.2
4.	Traffic Calming – Thomson Road	PG.4
5.	Fuel Supply Tender Extension	PG.7
6.	Gravel Supply and Haul Tender	PG.10
7.	Expansion Feasibility Initial Tasks	PG.12
8.	Whitton Road 2021 Capital Project	PG.37
9.	New/Other Business	
10.	Next Meeting:	
	i. March 3, 2021 at 8:30 a.m.	
11.	Adjournment	

TES Committee Meeting

December 2nd, 2020 8:30 a.m.

There was a meeting of the Transportation and Environmental Services Committee held at the Horton Community Centre on Wednesday December 2, 2020. Present was Chair Tom Webster, Mayor David Bennett, Councillor Lane Cleroux, Public Advisory Members Rick Lester, Murray Humphries, and Tyler Anderson. Staff present was Public Works Manager, Adam Knapp, and Admin/Planning Assistant, Nichole Dubeau – Recording Secretary.

1. CALL TO ORDER

Chair Webster called the meeting to order at 8:30 a.m.

2. DECLARATION OF PECUNIARY INTEREST

There was no declaration of pecuniary interest from committee members.

3. MINUTES FROM PREVIOUS MEETING:

November 4th, 2020

Moved by Rick Lester
Seconded by Tyler Anderson

THAT the Committee approve the November 4th, 2020 Minutes.

Carried

4. DRAFT MUTUAL ASSISTANCE AGREEMENT

Public Works Manager Adam Knapp reviewed the report. Mayor Bennett suggested discussing with the Township's insurance company to see if it would affect the Township in any way. He added that there should be a clause in the agreement stating that every municipality and the County must keep their fleet at a certain standard to ensure the safety of others. Chair Webster stated that if there is no cost to the Township, it would be very beneficial. Public Works Manager Adam Knapp is to research some more information with the County of Renfrew and bring it back to the next meeting.

5. DRAFT REVISION OF OFF-ROAD VEHICLE BY-LAW

Public Works Manager Adam Knapp reviewed the report. After committee discussion, Mr. Knapp is to review if extra signage is needed and contact the Renfrew County ATV Club.

6. PRODUCER REPSPONSIBILITY TRANSITION UPDATE

Public Works Manager Adam Knapp reviewed the report. There was Committee discussion regarding the two-year gap and the expense for the Township from when Horton is switched to producer responsibility.

7. VERBAL UPDATE – 2021 PROPOSED CAPITAL INFRASTRUCTURE

Public Works Manager Adam Knapp reviewed the report and presented three options for Whitton Road Rehabilitation. He added that he has a scheduled meeting with CAO/Clerk Hope Dillabough and Treasurer Nathalie Moore to discuss financing options. After Committee discussion, Mr. Knapp is to bring back the information from his meeting with the CAO/Clerk and Treasurer for committee discussion.

8. IN CAMERA (CLOSED) SESSION

Moved by Rick Lester

Seconded by Councillor Cleroux

THAT the TES Committee went into a Closed Session Meeting at 9:42 a.m. to discuss the following items pursuant to Section 239(2) (e) of the Municipal Act;

(e) Litigation or potential litigation – Grantham Road

Carried

Moved by Rick Lester

Seconded by Tyler Anderson

THAT the TES Committee came out of Closed (In-Camera) Session at 10:06 a.m. and discussed items pertaining to Litigation or potential litigation – Grantham Road.

Carried

9. **NEW/OTHER BUSINESS**

Public Works Manager Adam Knapp stated that the new tandem truck should be on site next week. Mayor Bennett stated that a new Provincial Legislation will be coming through that requires all farmlands on a County road to have a civic number for emergency purposes.

10. NEXT MEETING DATE

i. January 6th, 2021 at 8:30 a.m.

11. ADJOURNMENT

Chair Webster declared the meeting adjourned at 10:29 a.m

CUAID Tom Wohatar CAO/CLEDK Hana Dillahayah	CHAIR Tom Webster	CAO/CLERK Hope Dillabough



Township of Horton COUNCIL / COMMITTEE REPORT

Title:	Date:	Feb 3 ^{rd,} 2021
Traffic Calming Thomson Road	Council/Committee:	TES Committee
Traine Gaining Thomson Road	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES committee accept this report as information regarding the effectiveness of recently purchased traffic calming signage

BACKGROUND:

Council approved the purchase of 2 feedback signs and 1 speed tracker in late 2020. The signs recently arrived, and the two feedback units were installed on Thomson Road. Radar 2 was installed near 2701 Thomson Road by the Algonquin trail crossing and quickly revealed it as a speeding hot spot through a residential area. The data indicated that 61% of drivers were violating the posted speed limit and recorded speeds up to 150km/h. This information was passed along to the OPP who developed a traffic plan based on the Township data. Some resolved technical issues resulted in incomplete data columns but the day to day comparison is consistently lower from period 1 to period 2 which indicates the signs and OPP planning are effective. The purchased units allow the Township to communicate with the OPP the exact time and date when the peak violations occur saving time, money, and resources.

Staff intend to rotate the feedback display units throughout the Township once more signposts can be installed. The speed tracker unit which discreetly collects all the same data as the feedback display will be rotated throughout the Township on a weekly basis to identify speeding hot spots and update the Townships Annual Average Daily Traffic data.

speeding hot spots and update the Townships Annual Average Daily Traffic data.	
ALTERNATIVES: N/A	

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

2701 Thomson Road Weekly Comparison

CONSULTATIONS:

Hope Dillabough / CAO

Author:	Alus	Other:	signature
Treasurer:	RETURN T	O _{CA} GE	NDA

Summary Comparison Report

Location: Radar 2

Address: 2701 Thomson Road

Speed Limit: From schedule 80 km/h

Report Period 1: Report Period 2:

2021-01-11 to 2021-01-17 2021-01-18 to 2021-01-24

Day	Avera	ge vehicle	s count	Average speed		Average number of speed violations			Percent of speed violations			
	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference
Monday	64	n/a	H n/a	62	n/a	H n/a	48	n/a	H n/a	H 75 %	n/a	H n/a %
Tuesday	35	102	-67	58	70	-12	24	22	2	69 %	22 %	47 %
Wednesday	96	161	-65	H 84	H 77	7	56	61	-5	58 %	38 %	20 %
Thursday	159	150	9	82	70	12	83	25	58	52 %	17 %	35 %
Friday	H 191	H 197	-6	82	74	8	H 102	53	49	53 %	27 %	26 %
Saturday	n/a	166	H n/a	n/a	H 77	H n/a	n/a	H 62	H n/a	n/a	37 %	H n/a %
Sunday	n/a	133	H n/a	n/a	76	H n/a	n/a	57	H n/a	n/a	H 43 %	H n/a %
Total	545	909	-129	AVG: 74	AVG: 74	0	313	280	104	AVG: 61 %	AVG: 31 %	210 %

Count By Speed Range

Speed	Tota	l vehicles	I vehicles count Percent of vehicles count		Total speed violations			Percent of speed violations				
	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference
1-5	1	2	-1	0	0	0	0	0	0	0 %	0 %	0 %
6-10	0	0	0	0	0	0	0	0	0	0 %	0 %	0 %
11-15	0	0	0	0	0	0	0	0	0	0 %	0 %	0 %
16-20	1	4	-3	0	0	0	0	0	0	0 %	0 %	0 %
21-25	0	5	-5	0	1	-1	0	0	0	0 %	0 %	0 %
26-30	2	5	-3	0	1	-1	0	0	0	0 %	0 %	0 %
31-35	2	2	0	0	0	0	0	0	0	0 %	0 %	0 %
36-40	5	6	-1	1	1	0	0	0	0	0 %	0 %	0 %
41-45	8	4	4	1	0	1	0	0	0	0 %	0 %	0 %
46-50	15	12	3	3	1	2	0	0	0	0 %	0 %	0 %
51-55	13	20	-7	2	2	0	9	0	9	3 %	0 %	3 %

Speed	Tota	al vehicles	count	Percer	t of vehicl	es count	Total	speed vio	lations	Percent	of speed v	violations
	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference
56-60	16	53	-37	3	6	-3	11	0	11	4 %	0 %	4 %
61-65	29	86	-57	5	9	-4	15	0	H 15	5 %	0 %	H 5 %
66-70	39	122	-83	7	13	-6	14	0	14	4 %	0 %	4 %
71-75	74	147	-73	14	16	-2	10	0	10	3 %	0 %	3 %
76-80	H 90	H 161	-71	H 17	H 18	-1	4	0	4	1 %	0 %	1 %
81-85	83	106	-23	15	12	H 3	H 83	H 106	-23	H 27 %	H 38 %	-11 %
86-90	68	80	-12	12	9	H 3	68	80	-12	22 %	29 %	-7 %
91-95	44	50	-6	8	6	2	44	50	-6	14 %	18 %	-4 %
96-100	23	23	0	4	3	1	23	23	0	7 %	8 %	-1 %
101-105	12	12	0	2	1	1	12	12	0	4 %	4 %	0 %
106-110	11	6	H 5	2	1	1	11	6	5	4 %	2 %	2 %
111-115	2	1	1	0	0	0	2	1	1	1 %	0 %	1 %
116-120	1	0	1	0	0	0	1	0	1	0 %	0 %	0 %
121-125	2	1	1	0	0	0	2	1	1	1 %	0 %	1 %
126-130	2	1	1	0	0	0	2	1	1	1 %	0 %	1 %
131-135	0	0	0	0	0	0	0	0	0	0 %	0 %	0 %
136-140	0	0	0	0	0	0	0	0	0	0 %	0 %	0 %
141-145	1	0	1	0	0	0	1	0	1	0 %	0 %	0 %
146-150	1	0	1	0	0	0	1	0	1	0 %	0 %	0 %
151-155	0	0	0	0	0	0	0	0	0	0 %	0 %	0 %
156-160	0	0	0	0	0	0	0	0	0	0 %	0 %	0 %
Total	545	909	-364	AVG: 3	AVG: 3	0	313	280	33	AVG: 3 %	AVG: 3 %	0

H - highest value in the column, **bolded** H is highest H value in report

** "n/a" - means the sign did not collect any data at the time stipulated in the report. "n/a" values are NOT included in calculations.



Township of Horton COUNCIL / COMMITTEE REPORT

Title:	Date:	Feb 3 ^{rd,} 2021		
Fuel Supply Contract Extension 2018-01-02	Council/Committee:	TES Committee		
	Author:	Adam Knapp, Public Works Manager		
	Department:	Public Works		

RECOMMENDATIONS:

THAT the TES committee agree with Staff recommendation to extend the Supply and Distribution of Petroleum Products and Supply and Storage of Bulk Propane Contracts with W.O. Stinson and Sons for the additional 2 years specified in RFQ 2018-01 and 02

BACKGROUND:

At the request of Staff, the Township has received a promissory letter from Eric Stinson of W.O. Stinson and Sons stating they will honor the 2018 pricing as quoted for the next 2 years. The terms and pricing of the 2018 RFQ's are:

The Contract covers the period from March 1, 2018 until February 28, 2021 (Three Years) and may be extended by an additional two (2) one (1) year periods, subject to satisfactory service, price, terms, and conditions. Extensions are to be mutually acceptable and subject to a continued requirement by the Township and budgetary approval.

RFQ #PW 2018-01 'Supply & Storage of Bulk Propane' to W.O. Stinson & Sons Ltd. for the bid price of \$1.07 + H.S.T. and Carbon Tax per Liter of Propane used, inclusive of all equipment.

RFQ #PW 2018-02 'Supply & Distribute Petroleum Products' to W.O. Stinson & Sons Ltd. for the bid price of \$48,598.00 + H.S.T., inclusive of all products and equipment.

Upon receipt of a formal resolution, Staff will extend the contract between the Township and W.O Stinson & Sons until February 28^{th,} 2023.

ALTERNATIVES:

Re-issue a formal RFQ.

FINANCIAL IMPLICATIONS:

As stated in the Background

ATTACHMENTS:

Stinson Pricing Extension Letter

CONSULTATIONS:

Hope Dillabough - CAO/Clerk

Eric Stinson – W.O. Stinson and Sons Brian Laderoute – W.O Stinson and Sons

Author:	Ada Im	Other:	
	signature		signature
Treasurer:		C.A.O.	Hausey.
_	signature	-	signature



January 15, 2021

The Corporation of The Township of Horton 2253 Johnston Road Renfrew Ontario K7V 3Z8

Att: Adam Knapp- crs

Adam,

With respect to quotation PW2018-01 and PW2018-02 for bulk propane and fuel/lubricant delivery, W.O.Stinson and son Ltd. is prepared to maintain the same margin as quoted in 2018 for the next two years. We are pleased to serve the Township of Horton, and look forward to continuing servicing your fuel, propane and lubricant requirements.

If you need further assistance please reach out to myself or Brian Laderoute.

Eric Stinson



Township of Horton COUNCIL / COMMITTEE REPORT

Title:	Date:	February 3 rd 2021
Gravel Supply and Haul Tender - Eady Rd Rehabilitation	Council/Committee:	TES Committee
	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES Committee agree with staff recommendation to rehabilitate the middle section of Eady Road in the 2021 construction season.

AND THAT the Granular Haul and Supply Tender amount be increased to \$65,000 for this project.

BACKGROUND:

The Middle section of Eady Road has been flagged for rehabilitation in 2022 per the Road Management Plan. Both Bennett Lafont and Goshen Road were scheduled in 2021 but seen significant gravelling in 2020 through operating gravel funds. Staff believe both roads are in good condition and the focus should be on the middle section of Eady Road, specifically the area known as the swamp. Staff are proposing to replace the existing culvert with a 600mm HDPE double wall corrugated culvert, place geotextile on the entire road platform across the swamp and lift that section of the roadway. Any additional gravel will be used to spot gravel the remainder of the roadway East towards Castleford Road.

The proposed funding streams will be \$10,000 from taxation and \$40,000 from gas tax per the standard tender funding and an additional \$15,000 from the operating gravel fund. This will leave a total of \$13,000 in the operating gravel fund for the spot graveling of Whitton Road South, a culvert replacement on McBride Road and other spot gravelling throughout the Township as deemed necessary by staff. The Geotextile and the replacement Culvert will be funded through general operating funds.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

Per the Background

ATTACHMENTS:

N/A

CONSULTATIONS:

Hope Dillabough CAO/Clerk

Author:	Ada Zoo	Other:	
	signature		signature
Treasurer:		C.A.O.	Hallelings
	signature	-	signature



Township of Horton COUNCIL / COMMITTEE REPORT

Title:	Date:	Feb. 3 ^{rd,} 2021
Expansion Feasibility Initial Tasks	Council/Committee:	TES Committee
Expansion reasibility initial rasks	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES committee agree with staff and advise JP2G to proceed with the initial tasks as set forth in the expansion feasibility study letter addressed to Horton Township's Public Works Manager

BACKGROUND:

Council directed staff to proceed with an expansion feasibility study conducted by JP2G Consultants Inc. in the early months of 2020. Works have proceeded throughout the year and JP2G has prepared draft letters to be released to James Findlay Barr and the Ministry of Environment Conservation and Parks pending Council approval. Staff have highlighted and brought forward to JP2G Inc. that the 2020 expansion design plan note #6 states "Expansion design capacity = 40,072 m3, this overage to the 40,000 m3 expansion limit for Environmental Assessment exemption will be corrected by JP2G Inc. prior to release to the MECP.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

\$ 11,250, Per JP2G 2021 Expansion Work Plan

ATTACHMENTS:

Initial Tasks Expansion Feasibility Study Letter Draft Letter MECP Feasibility Assessment Draft Letter James Findlay Barr JP2G 2021 Work Plan

CONSULTATIONS:

Hope Dillabough - CAO/Clerk Kevin Mooder - JP2G, Principal / Environmental Services

	Adu los		
Author:		Other:	

		13
	signature	signature
Treasurer:		C.A.O. AQuelon
	signature	C.A.O. signature



Jp2g No. 20-6128A

December 14, 2020

Township of Horton 2253 Johnston Road RR5 Renfrew, ON K7V 3Z8

Attention: Adam Knapp

Public Works Manager

Re: Horton Landfill Site

Expansion Feasibility Study

Dear Adam:

We are pleased to provide the following as the initial tasks of a proposal for expansion of the Landfill Site for an additional <40,000m³ capacity.

- draft letter to MECP to detail the legal, environmental and operational issues to be addressed before the formal application to amend the ECA and includes the preliminary design drawing of the <40,000m³ expansion
- draft letter to Mr. Barr to advise of the proposal and request approval to reduce the monitoring of the well and creek to reflect the sites monitoring program (I need a copy of the agreement to insert the date)

If this is satisfactory, we can file with the MECP to consider in their review of the 2017/2018 Biennial Report and/or the 2019/2020 Biennial Report which is to be filed by April 30, 2021.

We can also send the letter to Mr. Barr and would be available to assist the Township in further discussion if necessary.

Yours very truly,

Jp2g Consultants Inc. ENGINEERS • PLANNERS • PROJECT MANAGERS

Kevin Mooder, MCIP, RPP

Principal/Environmental Services

Jp2g No. 20-6128A

December 14, 2020

Ministry of the Environment, Conservation and Parks 2430 Don Reid Drive Ottawa, ON K1H 1E1

Attention: Thandeka Ponalo

Sr. Environmental Officer

Re: Horton Landfill Site

Township of Horton ECA No. A412505

Expansion Feasibility Study

Dear Thandeka:

On behalf of the Township of Horton, we are pleased to provide this feasibility assessment regarding the potential for expansion at the Horton Landfill Site. This provides the likely steps to obtain approval for expansion of the Horton Landfill Site and is intended to provide the Township with a basis for waste management decision making pending MECP comments.

1.0 Introduction

The Horton Landfill Site is operating under ECA No. A412505 issued March 25, 2011 as amended.

Notice No. 1 September 19, 2012 Added Stantec submission of a soak pit design as Item 23 in

Schedule A

Notice No. 2 June 3, 2015 Amended Condition 92 approving biennial reporting and the

revised monitoring program Schedule B and C

Notice No. 3 December 1, 2017 Amended Conditions 25, 48 and 55 and added Condition 98 to

reflect modified operations

The environmental compliance program is based on a Hydrogeology, Hydrogeology and Geotechnical Report by Golder Associates Ltd. dated May 2009 and letters dated May 24, 2013 and February 5, 2014 which resulted in the current ECA monitoring and reporting requirements. Operations compliance is based on a May 2009 Landfill Development, Operations and Closure Report by Stantec, the May 24, 2017 and March 14, 2017 Stantec applications for amendments to the ECA.

As required under Conditions 96 and 97 of the ECA, Jp2g has been completing the operations and environmental monitoring and reporting since April 2017.



2.0 REMAINING CAPACITY

Under the January 14, 1998 ECA amendment, a Site Development and Operation Plan by McNeely Engineering dated July 1995, revised September 1997, determined there was 44,020m³ of landfill space utilized within a 2.5 ha fill area based mainly on a trench method of disposal with an area method over the former landfilling area. The 1998 expansion over a 1.0 ha area provided additional capacity of 36,100m³ which was completed in 2011. Under the March 24, 2011 ECA an additional 39,900m³ was approved, as described in the Landfill Development, Operation and Closure Report by Stantec dated May 2009, as amended. The ECA Condition 28 states the total site capacity is 120,020m³.

Under the current program Jp2g conducts an annual survey of the waste mound to determine the annual landfilling rate and remaining capacity. As the survey is only done once per year there is often areas and associated landfill quantities which are not identified. As presented in the 2017/2018 Biennial Report it was assumed there is a remaining total site capacity of 23,830m³ at the end of 2018 based on a comparison to the 2010 design drawings. This assessment did not account for the application of final cover in the northerly portion of the site. Therefore, based on Stantec's estimate of remaining capacity on December 31, 2016 of 32,947m³ and Jp2g capacity surveys in 2017 and 2018 there was an estimated 28,722m³ capacity in December 2018. Jp2g conducted a capacity survey on November 19, 2019 which estimated there was 26,622m³ remaining capacity and an annual landfilling rate of approximately 2,100m³.

The 2017 and 2019 Ottawa River flooding events created large quantities of waste from shoreline clean up, building demolition and sandbags. The majority of this waste was diverted from disposal at the Horton WDS through funding relief programs, however if it was to be landfilled there would have been significant capacity used. Although there is a projected life expectancy of approximately 10 years, in our experience the MECP technical review of expansion proposals before a formal application can take 2-3 years and the associated costs including the application fee, must be considered by the Township in their annual waste management budgets. Alternatively, if expansion is not feasible the municipality would require time to investigate and select another cost-effective solution.

3.0 LEGISLATIVE REQUIREMENTS

Under Ontario Regulation 101/07, made under the EA Act, a proponent may increase the capacity by 40,000m³ or more but not more than 100,000m³ subject to fulfilling the Environmental Screening Process. A change of less than 40,000m³ is exempt from the EA Act.

Approvals for changes to waste disposal sites is obtained under Part V of the Environmental Protection Act (EPA) and reviewed under the Environmental Compliance Approval (ECA) process set by O.Reg 255/11.

Under the Ministry's Requirement for Fees with ECA's (formerly O.Reg 363/98 Section 27 EPA) the province applies fees to review applications.

The Township has decided to determine the feasibility of expansion <40,000m³, a preliminary design is included as **Drawing 1** "2020 Expansion Design". Pre-submission consultation with the Ottawa District office and TSS Regional office is required before the application. This letter combined with the recent Biennial Report should facilitate this review.



4.0 HORTON LANDFILL SITE ASSESSMENT

In order to assess the feasibility of a successful expansion application three (3) main issues need to be considered in consultation with MECP.

<u>Legal</u> – the status of the ECA, the adequacy of the landholdings and the municipality's compliance with the conditions.

- correct description of the site defining the landfilling area and total site
- correct legal survey or description of the site
- adequate contaminant attenuation zone (CAZ)
- outstanding ECA conditions to be satisfied
- submissions to satisfy a condition requiring MECP review and approval

<u>Environmental</u> – the status of the water quality and landfill gas monitoring program and any measured or potential impacts on the surface and groundwater, and the potential impact to other natural environmental features.

- groundwater quality impacts
- surface water quality impacts
- adequacy of surface water flow control/stormwater management
- adequacy of the landfill gas monitoring program
- proximity to environmentally sensitive areas (ESA)
- potential impact on rare or endangered species and habitat (SAR)
- outstanding actions to address MECP Technical Support Section (TSS) review comments

<u>Operations</u> – the status of site operations and the potential impact on adjacent land uses and the local community.

- any record of negative effects on-site or on adjacent land uses, i.e. litter, dust, noise, odour, landfill gas
- any record of operational concerns
- outstanding actions to address MECP inspection reports

4.1 Legal

The ECA No. A412001 dated March 25, 2011 as amended defines the Horton Landfill Site as a 2.5 ha waste disposal site within a total site area of 20.64 ha. Condition 14 of the ECA requires that a Certificate of Requirement be registered on title which it is understood was completed when the lands were purchased from Barr. Under the terms of that agreement annual sampling of the well and creek on the Barr property is required. The proposed expansion will increase the landfilling area from 2.5 ha to 3.4 ha.

The proposed expansion application will require supporting documentation that an adequate CAZ is provided to ensure compliance with provincial standards. In addition, there are a number of ECA Conditions which can be addressed under an application for an ECA Amendment, which are discussed in the following sections:

- Soak Pit Conditions 19-24 and 65
- Groundwater and Surface Water Monitoring Conditions 76 to 79
- Landfill Gas Monitoring Conditions 77, 80 and 81
- MSW and MHW Transfer Condition 98



4.2 Environmental

The monitoring program approved under the current ECA is to satisfy Conditions 92 and 93(a), (b), (i) and (j). The monitoring program as detailed in ECA Schedule "B", "C" and "D" consists of the biennial (every 2 years) collection of static water levels, groundwater samples from twenty-one (21) monitoring wells and the Barr well, and surface water samples from three (3) locations and the Barr Creek, in addition to annual sampling of landfill gas eight (8) events.

Overview

The analytical results show a diffuse leachate plume to the east that is characterized by decreasing chemical concentrations with increasing distance from the fill area. **Figure 1** shows the dispersion of the leachate plume, which (based on borehole logs and analysis of chemistry) is situated in the upper granular zone.

Various downgradient wells were used as RUC compliance wells, including G93-5A, G93-5B, G96-8A, G96-8B, G96-10A, G96-10B, G96-10C, G96-12, G96-13. Based on the chemical results from the most recent sampling event and 2017/2018 Biennial Monitoring Report, the site is considered to be compliant with the Guideline B-7.

Groundwater monitoring wells (G96-8A, G96-8B, G96-10A, G96-10B, G96-10C) near surface water stations SW17 and SW18 were compared to PWQO/CWQG to determine if leachate impacts were affecting the surface water receiving body. Results indicate no exceedances to PWQO/CWQG suggesting the surface water is not impacted by the leachate. The surface water in Barr Creek located over 1 km from the fill area is also interpreted not be affected by the landfill.

The presence of methane gas in the subsurface was not detected at the northern property boundary during the last biennial monitoring period, and the landfill is in compliance with the requirements of the ECA related to landfill gas at the boundary limits.

Part of the feasibility study for the landfill expansion has included a critical review of the monitoring program:

- Including enhancement of water quality sampling of key wells, a reduction of water quality sampling where feasible, and removal of unnecessary monitoring wells;
- Decommissioning any wells not necessary for the monitoring program;
- Reduction of landfill gas monitoring program; and
- Review agreement with Barr to reduce monitoring of the well and creek.

It is anticipated that a proposed expansion will not impact Environmentally Sensitive Areas (ESA) or Species At Risk (SAR), or their habitat as the expansion of the landfilling area is immediately adjacent to the operating fill area.



Revised Groundwater Monitoring Program

The existing monitoring program was reviewed to assess groundwater and surface water conditions, and where feasible condense the program to accurately address necessary impacts from the landfill. **Attachment 1** indicates the existing and proposed revised monitoring program. As shown, monitoring wells including G93-1, G93-5B, G93-7B, G96-8B, G96-9B/C, G96-10C, G96-12 & G96-13 are to be sampled on an annual basis for the full set of parameters 'surveillance' (Column 1 of Schedule 5). This increase in parameters will help establish a more comprehensive data set for the boundary compliance wells, to compare with the background and leachate wells. The updated program will continue to sample the other monitoring wells on a biennial basis as per ECA Schedule "A", with the proposed decommissioning of G93-6A, 91-A2 and G9611A/B. The decommissioning of these wells will not change our understanding of the landfill plume delineation.

In accordance with ECA Conditions 75 the expansion application will request Director approval to decommission the four (4) monitoring wells. To establish a more comprehensive water quality data base, in accordance with ECA Condition 76 we request District Manager approval to alter the groundwater and surface water monitoring program.

Revised Landfill Gas Monitoring Program

In the past there has been discussion with MECP to have a reduction in the landfill gas monitoring program, which is currently at 8 times per year for monitoring wells GW 11-1 and GW 11-2. As per ECA Condition 80 a critical limit of 2.5% methane (25,000 ppm) is applied as the trigger concentration. Based on consistently low levels of gas readings at these wells, the previous consultant (Golder) requested a reduction to the program in 2015. A memorandum dated February 13, 2017 from a TSS Air Quality Analyst suggested that various recommendations must be undertaken prior to consideration of reducing the monitoring program. Recommendations included monitoring of on-site buildings, and adding contextual and subsurface pressure information.

To reduce the amount of landfill gas monitoring events, the requested recommendations will be adopted into the revised monitoring program. This will help to establish a background database set that would support the assumption that landfill gas build up in on-site buildings or off-site migration is not a concern. Once there is sufficient data, in accordance with ECA Condition 76 a request for District Manager approval of a modified gas monitoring program will be filed.

Revised Barr Creek and Barr Well Sampling Program

It is also proposed to reduce the sampling required under the agreement between the Township and Mr. Barr. Due to historical and current analysis of the Barr Creek and Barr Well which indicates no signs of any landfill leachate impact. The proposed reduction will be to sample these locations on a biennial basis.

4.3 Operational

Landfilling at the Horton WDS since 1994 has involved the area method of landfilling over the former 2.5 ha landfilling area, with the exception of the southerly portion. The proposed expansion design will be an extension of this operation easterly providing an additional capacity of 40,000m³ as shown on **Drawing No. 1**. Options considered the expansion of the landfilling area in other directions and/or increasing the height of the existing waste pile. The proposed design maintains the buffer and setback distances to sensitive uses residential to the west and road to the south and the same height.



Landfilling Operations

The Landfill Development, Operations and Closure Report dated May 2009 details the current landfilling procedures. The proposed expansion will involve the Area Method of landfilling extending from the northerly slope over the remaining 2.5 ha landfilling area previously trenched and then extending approximately another 30m. A base elevation of 161m will be developed using a 6430m³ clean fill prior to waste disposal.

Waste compaction and weekly cover is to continue as per ECA Conditions 48 to 52.

Soak Pit

In accordance with ECA Conditions 19-24 and 65, Stantec filed the soak pit design May 24, 2012 and obtained approval under ECA No. A412505 Notice No. 1 dated September 19, 2012.

The works have not been constructed. The current groundwater monitoring program does not indicate any significant impact as a result of surface water flow from the waste mound, and the current infiltration into the groundwater occurs at a wetland area where the engineered soak pit is proposed.

NSW and NHW Transfer

Under a July 31, 2017 application to amend the ECA, supported with a Stantec letter report March 14, 2017 the Township received conditional approval for the storage of municipal special waste (MSW) and municipal hazardous waste (MHW) as per ECA Conditions 25(b) and 98. Storage containers are onsite, but no transfer operations have been initiated.

We trust this summary is satisfactory and will be considered by TSS in their review of the last Biennial Report. Should you have any questions please do not hesitate to contact the undersigned.

Yours very truly,

Jp2g Consultants Inc.

Engineers • Planners • Project Managers

Kevin Mooder, MCIP, RPP Principal I Environmental Services

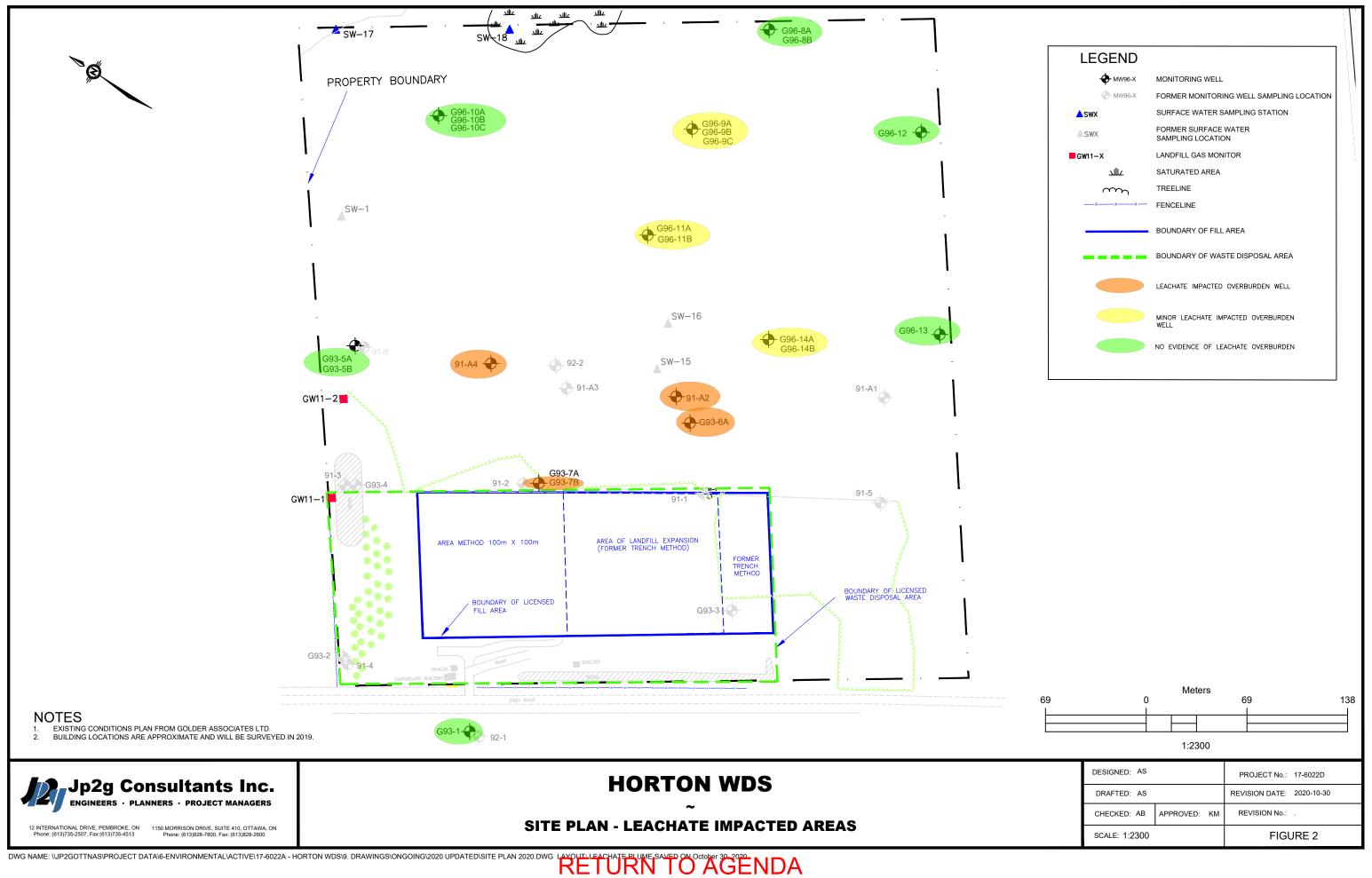
Andrea Sare, C.Tech,EP. Environmental Technician

Andrew Buzza, P.Geo Sr. Hydrogeologist

KM/AS/jlp

c.c. Adam Knapp (Public Works Manager)

Figures and Drawings



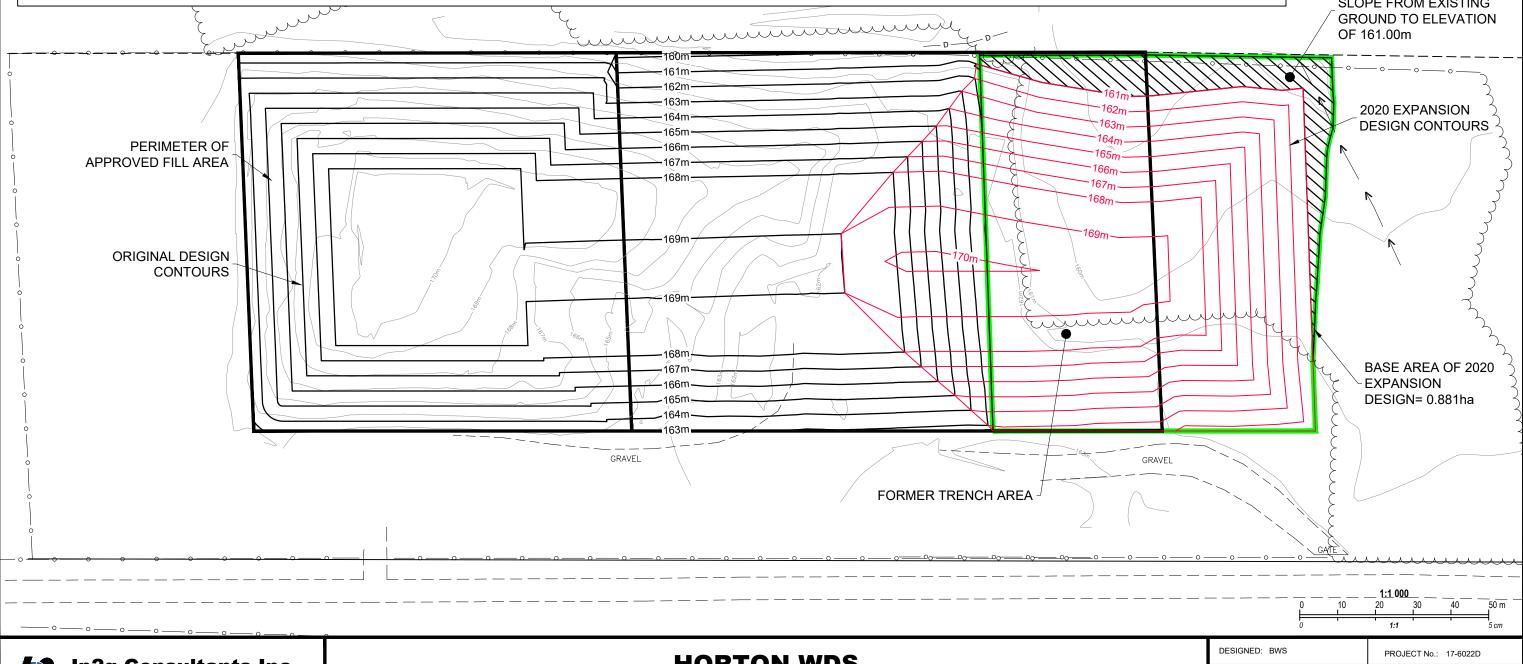
NOTES

- 1. EXPANSION DESIGN CONTOURS START AT A 4:1 SLOPE TO 4. GROUND LEVEL BELOW 161.00m TO BE FILLED WITH ELEVATION 168.35m.
- 2. EXPANSION DESIGN CONTOURS AT 12:1 SLOPE FROM ELEVATION 168.35m TO ELEVATION 170.17m.
- 3. EXPANSION DESIGN CONTOURS SHOWN ARE TO TOP OF WASTE.
- APPROVED FILL AT 4:1 SLOPE TO 161.00m.
- 5. EXISTING FENCE LINE ON THE NORTH EAST SIDE TO BE REMOVED AND REPLACED FOR EXPANSION DESIGN **CONTOURS**
- 6. EXPANSION DESIGN CAPACITY= 40,072m³.

- ELEVATIONS ARE GEODETIC.
- 8. APPROXIMATELY 6430m³ OF APPROVED FILL IS NEEDED TO HAVE A BASE ELEVATION OF 161.00m FOR THE **EXPANSION DESIGN CONTOURS.**



APPROVED FILL AT 4:1 SLOPE FROM EXISTING



Jp2g Consultants Inc. ENGINEERS · PLANNERS · PROJECT MANAGERS

HORTON WDS

2020 EXPANSION DESIGN

DESIGNED: BWS		PROJECT No.:	17-6022D
DRAFTED: BWS		REVISION DATE:	2020-11-26
CHECKED: KM	APPROVED: KM	REVISION No.:	
SCALE: 1:1000		SHEET No.:	1 of 1

Attachment 1

Current Monitoring Plan

Monitoring Location	Spring	Fall		
Groundwater				
Surveillance Groundwater Monitors: G93-	All Monitoring Locations	Barr Well: Sampling Parameters as		
1 (Background), G93-7B (Leachate), 91-	Water Level – Column 1	listed in Schedule B		
A4 (downgradient)	Sampling Parameters as listed in			
	Schedule B	Field Measurements:		
Routine Groundwater Monitors: 91-A2,		Temperature		
G93-6A, G93-5A, G93-5B, G96-8A, G96-8B,	Field Measurements:	pH		
G96-9A, G96-9B, G96-9C, G96-10A, G96-	Temperature	Conductivity		
10B, G96-10C, G96-11A, G96-11B, G96-12,	рН			
G96-13, G96-14A, G96-14B, Barr Well	Conductivity			
*One field blank, one duplicate taken				
during each sample event				
	Surface Water			
SW-17 (Background)	All Monitoring Locations	Barr Creek: Parameters as listed in		
SW-18 (Downgradient)	Parameters as listed in Schedule C	Schedule C		
Barr Creek				
*One duplicate taken during each	Field Measurements:	Field Measurements:		
sample event	Temperature	Temperature		
	pH	pH		
	Conductivity	Conductivity		
	Dissolved Oxygen	Dissolved Oxygen		
	Flow	Flow		

Bi-annual Monitoring

Schedule B (Ground water) Parameters:

Routine: chloride, hardness, potassium, barium, boron, manganese, strontium, TDS, ammonia, iron. Field: temperature, pH, conductivity.

Surveillance: alkalinity, ammonia, arsenic, barium, boron, cadmium, calcium, chloride, chromium, copper, hardness, iron, lead, magnesium, manganese, mercury, nitrate, nitrite, TKN, orthophosphate, potassium, sodium, strontium, sulphate, TDS, zinc, benzene, 1,4-dichlorobenzene, dichloromethane, toluene, vinyl chloride, COD, DOC, phenol. Field: temperature, pH, conductivity.

Schedule C (Surface Water) Parameters:

Routine: chloride, hardness, potassium, barium, boron, manganese, strontium, TDS, ammonia, iron. Field: temperature, pH, conductivity, dissolved oxygen, velocity, depth and cross-sectional measurements.

Surveillance: alkalinity, unionized ammonia, arsenic, barium, boron, cadmium, calcium, chloride, chromium, copper, hardness, iron, lead, magnesium, manganese, mercury, nitrate, nitrite, TKN, total phosphorus, potassium, sodium, strontium, sulphate, TDS, zinc, COD, phenol. Field: temperature, pH, conductivity, dissolved oxygen, velocity, depth and cross-sectional measurements.

Bi-annual Residential (Barr) sampling:

Barr Well: Routine Parameters (spring/fall)
Barr Creek: Routine Parameters (spring/fall)

Landfill Gas Monitoring:

8 times per year. Monthly form November to April, and two other times.

Proposed Monitoring Plan

Wells	Annual	Biennial Monitoring		
wens	Monitoring (Spring)	Spring	Fall	
	Ground	water		
G93-1 (Background)	1 + WL + Gas			
G93-5A		1 + WL + Gas		
G93-5B	1 + WL + Gas			
G93-6A	То	be Decommissioned		
91-A2	То	be Decommissioned		
91-A4		1 + WL + Gas		
G93-7A		WL + Gas		
G93-7B (leachate)	1 + WL + Gas			
G96-8A		1 + WL + Gas		
G96-8B	1+ WL + Gas			
G96-9A		WL + Gas		
G96-9B	1+ WL + Gas			
G96-9C	1 + WL + Gas			
G96-10A		WL + Gas		
G96-10B		1+ WL + Gas		
G96-10C	1 + WL + Gas			
G96-11A	To be Decommissioned			
G96-11B	То	be Decommissioned		
G96-12	2 + WL + Gas			
G96-13	2 + WL + Gas			
G96-14A		1 + WL + Gas		
G96-14B		1 + WL + Gas		
Barr Well		2 + WL + Gas	2 + WL + Gas	
	Surface	Water		
SW17	3			
SW18	3		_	
Barr Creek		4	4	

Groundwater Monitoring Frequency: Spring (May/June) and Fall (Sept/Oct) with a minimum of 60 days between events

Analysis:

WL Water level

- Surveillance: alkalinity, ammonia, arsenic, barium, boron, cadmium, calcium, chloride, chromium, copper, hardness, iron, lead, magnesium, manganese, mercury, nitrate, nitrite, TKN, orthophosphate, potassium, sodium, strontium, sulphate, TDS, zinc, benzene, 1,4-dichlorobenzene, dichloromethane, toluene, vinyl chloride, COD, DOC, phenol. Field: temperature, pH, conductivity.
- 2 Routine: chloride, hardness, potassium, barium, boron, manganese, strontium, TDS, ammonia, iron. Field: temperature, pH, conductivity

Gas - Landfill gas to be recorded at all locations concurrent with sampling

All detection limits must meet applicable guidelines

Landfill Gas Monitoring:

*One field blank, one duplicate taken during each sample event

Surface water Monitoring Frequency: Spring (May/June) and Fall (Sept/Oct) with a minimum of 60 days between events

Analysis:

- Surveillance: alkalinity, unionized ammonia, arsenic, barium, boron, cadmium, calcium, chloride, chromium, copper, hardness, iron, lead, magnesium, manganese, mercury, nitrate, nitrite, TKN, total phosphorus, potassium, sodium, strontium, sulphate, TDS, zinc, COD, phenol. Field: temperature, pH, conductivity, dissolved oxygen, velocity, depth and cross-sectional measurements
- 4 Routine: chloride, hardness, potassium, barium, boron, manganese, strontium, TDS, ammonia, iron. Field: temperature, pH, conductivity, dissolved oxygen, velocity, depth and cross-sectional measurements.
 - Lowest possible detection limits are required to meet provincial or federal surface water standards (PWQO, or CWQG).
 - Visual inspection for seeps during the spring and summer sampling events. If a seep is found the location and sampling results are to be provided in the Annual Report.

8 times per year. Monthly form November to April, and two other times.

RETURN TO AGENDA

^{*}One field blank, one duplicate taken during each sample event



Jp2g No. 20-6128A

December 14, 2020

Findlay James Barr 183 Jim Barr Road Renfrew, ON K7V 3Z8

Re: Horton Waste Disposal Site (WDS)
Reduction to Monitoring Program

Dear Sir:

The Township of Horton has requested Jp2g Consultants Inc. to review the current and historical leachate analysis of the Horton WDS and assess the feasibility of a capacity expansion. Based on the existing monitoring program we have determined that there is no indication of groundwater and surface water impact beyond the limits of the municipal landholdings. Under the purchase agreement dated ______, the Township is to sample your well and creek twice a year, every year. We are requesting a reduction in the monitoring of the creek and drinking well to once a year, every other year (on a biennial basis) similar to the monitoring program for the majority of the wells on the landfill site.

In support of this reduction, we have provided a summary of the key leachate indicator parameters which indicate no trends and/or exceedances to the Ontario Drinking Water Standards (OWDS) and Provincial Water Quality Guidelines (PWQO). These are the provincial guidelines used to determine safe concentrations of various parameters in groundwater sources and surface water.

Barr Creek

Upon agreement with the Township, the creek has been consecutively sampled since the mid-1990s. Below are various trend graphs indicating key parameter concentrations over time. As shown, total dissolved solids (TDS), hardness, boron and chloride (which are key leachate indicator parameters) have all shown to be fairly consistent with no increasing trends. This analysis, in addition to the results in the Horton landfill Monitoring Reports demonstrates that the creek is not being impacted by the landfill site. We are proposing the annual monitoring of the wells located along the landfill site perimeter which will provide early warning detections of the landfill plume before it would reach your property.

Graph 1 shows the TDS and Hardness concentrations over the period of 20+ years. Aside from small variations, which can be attributed to seasonal sampling (wet vs dry) it remains fairly constant.

Graph 2 shown the Boron concentrations in the range of <0.01 mg/L – 0.06 mg/L, the PWQO limit is 0.2 mg/L.

Graph 3 shows the Chloride concentrations in the range of 4 mg/L – 12 mg/L, the PWQO limit is 120 mg/L.

Barr Well

As per agreement with the Township, the drinking well has also been sampled consecutively since the mid-1990s. Below are trend graphs showing the key leachate parameters and concentrations overtime. Similar to the creek, no increasing trends are apparent which demonstrates the water supply is not being impact by the landfill site.

Graph 4 shows the concentrations of various parameters used to assess the suitability of the drinking water supply.

Graph 5 shows the Boron concentrations in the range of <0.1 mg/L - 0.24 mg/L, the ODWS is 5 mg/L.

Graph 6 shows the Chloride concentrations in the range of 8 mg/L – 52 mg/L, the ODWS is 250 mg/L.

Graphs 1 to 6 included in Attachment at end of letter.

Based on a comparison of historical results, and due to the monitoring locations on your property being over 1 km from the landfill area, the creek and drinking well are interpreted to not be impacted by landfill leachate now or in the future.

With your consent, beginning in 2021 your creek and drinking well will be sampled once a year on a biennial basis. The sampling results and a letter will be provided to you after each sampling event. Should any trends or significant indicators arise that may be problematic to health of the stream and/or drinking water you shall be advised immediately.

If you have any questions, please do not hesitate to contact the undersigned.

Yours very truly,

Jp2g Consultants Inc.

ENGINEERS • PLANNERS • PROJECT MANAGERS

Kevin Mooder, MCIP, RPP

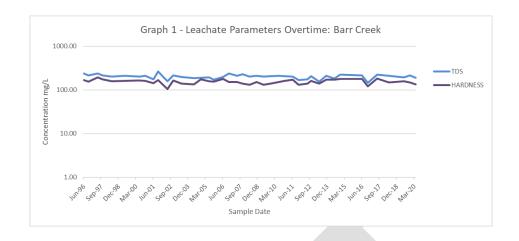
Principal I Environmental Services

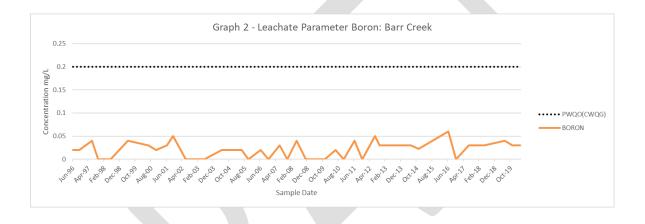
Andrea Sare, C.Tech,EP. Environmental Technician

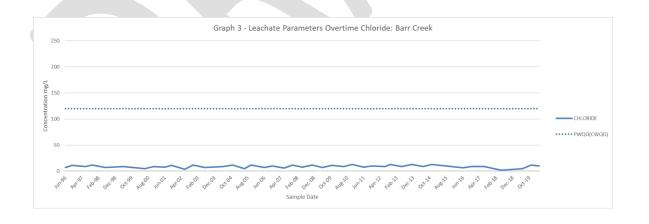
KJM/jlp

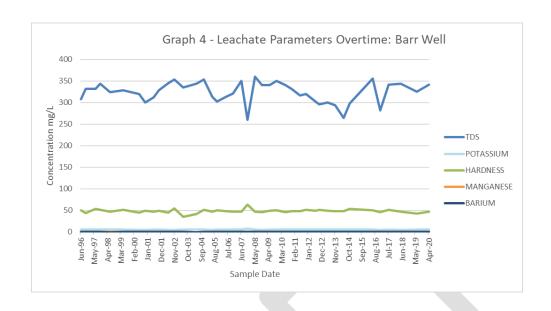
c.c. Adam Knapp (Public Works Manager)

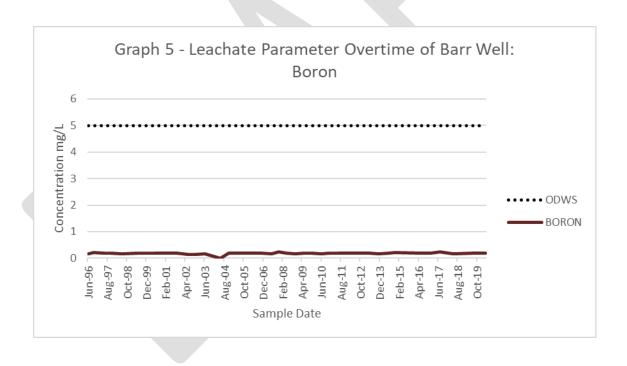
ATTACHMENT

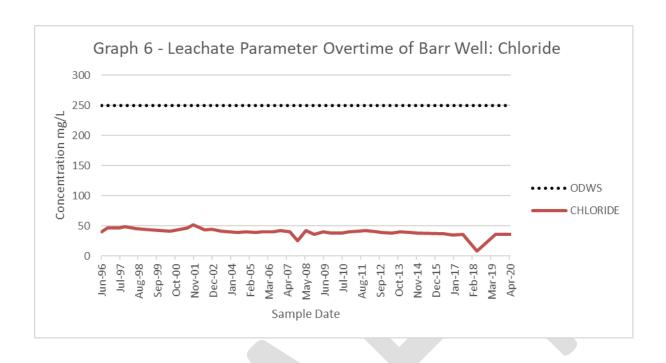














Jp2g No. 20-6128A

December 4, 2020

Township of Horton 2253 Johnston Road RR5 Renfrew, ON K7V 3Z8

Attention: Adam Knapp

Public Works Manager

Re: Horton Landfill Site

Expansion Feasibility 2021 Work Plan

Dear Adam:

Further to our October 27, 2020 work plan for compliance monitoring and reporting we are pleased to describe tasks and an estimate of probable costs to continue the Expansion Feasibility Study.

We will be filing the draft letters to the MECP and Mr. Barr for Council's consideration in the near future as the first step in the study. Upon approval of their content we propose the following:

1. <u>Project Management</u>

Involves client liaison, QA/QC document production, billing, and cost control.

2. <u>Upgrade Expansion Concept Plan</u>

Finalize design drawing for submission to MECP and provide the quantities of earth fill required to establish the base of the expanded fill area and quantities of cover material required.

3. Modified Water Quality Monitoring Program

The existing monitoring program was reviewed to assess groundwater and surface water conditions, and where feasible condense the program to accurately address necessary impacts from the landfill. Monitoring wells including G93-1, G93-5B, G93-7B, G96-8B, G96-9B/C, G96-10C, G96-12 & G96-13 are to be sampled on an annual basis for the full set of parameters 'Surveillance' (Column 1 of Schedule 5). This increase in sampling frequency and analysis of additional parameters will help establish a more comprehensive data set to support the proposed landfill expansion.



4. <u>Upgrade the Landfill Gas Wells</u>

The landfill gas monitoring program is currently at 8 times per year for monitoring wells GW11-1 and GW11-2. Based on consistently low levels of gas readings at these wells, the previous consultant (Golder) requested a reduction to the program in 2015. A memorandum dated February 13, 2017 from a TSS Air Quality Analyst suggested that various recommendations must be undertaken prior to consideration of reducing the monitoring program. Recommendations included monitoring of on-site buildings and adding contextual and subsurface pressure information. To reduce the amount of landfill gas monitoring events, the requested recommendations should be included in the monitoring program moving forwards. This will help to establish a background database set that would support how landfill gas build up in on-sites buildings or off-site migration is not a concern.

Installation of landfill gas monitoring equipment will include vapour plug caps, port adaptors, and pressure gauges to measure subsurface pressure at GW11-1, GW11-2 and leachate well G93-7B (for comparative purposes).

5. MECP Consultation

We would hope to receive MECP comments on the initial Expansion Feasibility Study in 2021 and any TSS review of the latest monitoring report in consideration of the expansion proposal. Assume a budget allowance to participate in a remote meeting and respond to any reasonable MECP enquiries.

6. Barr Consultation

If required, we would be pleased to meet with Mr. Barr to discuss the reduction of the sampling on his property.



2021 Work Plan

Task	Cost (HST Excluded)	
1. Project Management	\$1,500.00	
2. Upgrade Concept Plan	\$2,500.00	
3. Modified Monitoring Program	\$3,350.00	
4. Upgrade Gas Wells	\$400.00	
5. MECP Consultation	\$3,000.00	
6. Barr Consultation	\$500.00	
Sub-Total	\$11,250.00	

Yours very truly, Jp2g Consultants Inc. Engineers • Planners • Project Managers

Kevin Mooder, MCIP, RPP Principal | Environmental Services

KM/jlp

Andrea Sare, C.Tech., EP Environmental Technician



Township of Horton COUNCIL / COMMITTEE REPORT

Title:	Date:	February 3 rd ,2021
Whitton Road (South) 2021 Capital Project	Council/Committee:	TES Committee
	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES committee agree with staff recommendation to proceed with Rehabilitation Option #2 for Whitton Road (South) in 2021.

BACKGROUND:

Several rehabilitation options were presented during the regularly scheduled December 2020 TES meeting. The consensus was that option #2 or 2b where the preferred level of rehabilitation and that staff should bring the discussion forward again once the finalized 2021 budget numbers became available. By utilizing available OCIF, Gas Tax, Reserves and Lot Development funding the Township has \$305,287 available for the rehabilitation effort.

The Southern section of Whitton Road currently consists of 820m of HL4 surface and 770m of gravel surface. Option #2 will utilize nearly all available funding and extend the HL4 surface to 1145m from the intersection of Gillan Road proceeding South East on Whitton Road and reduce the Gravel surface to 445m. The remaining gravel surface will receive a Granular M spot gravelling treatment by Township staff once the contracted works are completed. The spot gravelling will be funded through the yearly operating gravel budget. The reduction in gravel surface on this portion of Whitton Road will also allow staff to increase calcium treatment on the remaining gravel section.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

Estimated \$288,649.62

ATTACHMENTS:

Option #2 Whitton Road Rehab

CONSULTATIONS:

Hope Dillabough - CAO/Clerk Nathalie Moore - Treasurer

Author:	Adu tom	Other:	
	RETURN	TO AGE	NDA

signature signature

Treasurer: Mathalohoom C.A.O. 44



Gillan Road to 1507 Whitton Paved HL4 Surface

Whitton Road 2021 Capital Estimate Option #2				
CONSTRUCTION ITEMS	Unit Prices	Totals		
SURFACE WORKS				
1. Pulverise existing HCB surface	670m x 7m x \$5 m2	\$23,450.00		
2. 100 mm Granular A lift on entire road	900m x 9.5 x \$6 per m2	\$51,300.00		
3. Shouldering of paved section	3m x 1145m x\$6 per m2	\$20,610.00		
4. 50mm HL4 hot mix from Gillan Road to 1507 Whitton Rd.	1145m x 6.5m x \$17 per m2	\$126,522.50		
5. Granular A driveway tie ins	4m x 5m x 53 driveways x \$6 per m2	\$6,360.00		
6. 50mm HL4 Driveway tie ins	4m x 5m x 10 driveways x\$17 per m2	\$3,400.00		
7. Crusher Dust Trail tie ins	4m x 5m x 2 trail heads x \$8 per m2	\$320.00		
8. Line Painting Solid Yellow Center Line	1145m x \$225 Per Km	\$257.63		
	SUB TOTAL	\$232,220.13		
SUB SURFACE AND DITCHING	SOB TOTAL	\$232,220.13		
	SUB TOTAL	\$0.00		
	TOTAL	\$232,220.13		
	10% CONTINGENCY	\$23,222.01		
	13% TAX	\$33,207.48		
	Tax after 86.4% Rebate	\$4,516.22		
	Total After Rebate	\$259,958.36		
	Grand Total	\$288,649.62		
	Notes:			