



THE CORPORATION OF THE TOWNSHIP OF HORTON
TRANSPORTATION & ENVIRONMENTAL SERVICES

April 12th, 2023
8:30 a.m.
Horton Council Chambers
2253 Johnston Rd.

1. Call to Order
2. Declaration of Pecuniary Interest
3. Minutes from Previous Meeting:
 - i. March 1st, 2023 **PG.2**
4. 10 Year Capital Roads Rehabilitation Plan **PG.4**
5. Updated 2023 LFS Expansion Feasibility Work Plan Funding **PG.18**
6. WM 2020-01 Contract Termination and Depot Recycling Contract **PG.26**
7. New/Other Business
8. Next Meeting:
 - i. May 3rd, 2023
9. Adjournment

THE CORPORATION OF THE TOWNSHIP OF HORTON

TES Committee MeetingMarch 1st, 2023

8:30 a.m.

There was a meeting of the Transportation and Environmental Services Committee held in the Municipal Chambers on Wednesday March 1st, 2023. Present was Chair Doug Humphries, and Deputy Mayor Tom Webster, and Public Advisory Members Bob Kingsbury, and Tyler Anderson. Staff present was Public Works Manager, Adam Knapp, and Executive Assistant Nichole Dubeau— Recording Secretary.

Mayor David Bennett sent his regrets.

1. **CALL TO ORDER**
Chair Humphries called the meeting to order at 8:30 a.m.
2. **DECLARATION OF PECUNIARY INTEREST**
There was no declaration of pecuniary interest.
3. **MINUTES FROM PREVIOUS MEETING:**
 - February 1st, 2023

Moved by Tyler Anderson

Seconded by Bob Kingsbury

THAT the Committee approve the February 1st, 2023 Minutes.

Carried

4. **PRODUCER RESPONSIBILITY ICI PUBLIC MEETING**
Public Works Manager Adam Knapp reviewed the report. Committee agreed to holding a public information session for ICI ratepayers to better their knowledge.

Moved by Tyler Anderson

Seconded by Bob Kingsbury

THAT the TES Committee recommend to Council to hold a public meeting on April 6th, 2023 at 5 p.m. in the Council Chambers to discuss with ICI rate payers the transition to producer responsibility;

FURTHER THAT staff be directed to mail out an invitation and promotion and education material to all ICI rate payers in Horton Township.

Carried

5. **COUNTY OF RENFREW DRAFT POLICIES**
Public Works Manager Adam Knapp reviewed the report.
6. **PROPOSED GICB BUDGET**
Public Works Manager Adam Knapp reviewed the report. Public Advisory Member Bob Kingsbury questioned where the Township's share of the cost will be funded from. Mr. Knapp stated that between the Recreation Reserve and Working Funds, there is plenty available.
7. **AWARD TENDER PWC 2022-25 TRANSPORTATION MASTER PLAN**
Public Works Manager Adam Knapp reviewed the report. Committee was in agreeance to award the tender to McIntosh Perry Consulting Engineers.

RETURN TO AGENDA

Moved by Tyler Anderson
Seconded by Bob Kingsbury

THAT the TES Committee recommend to Council to award Horton's portion of PWC 2022-25 Transportation Master Plan (TMP) to McIntosh Perry Consulting Engineers Ltd;

AND THAT an upset total of \$50,000 in funding for the Transportation Master Plan be allocated from the Working Funds Reserve;

AND FURTHER THAT this be included in the 2023 Budget for consideration.

Carried

8. **BRUCE STREET REHABILITATION NOTICE**
Public Works Manager Adam Knapp reviewed the report.
9. **MULLINS ROAD 2023 CAPITAL REHABILITATION**
Public Works Manager Adam Knapp reviewed the report.
10. **NEW/OTHER BUSINESS**
Public Advisory Member Tyler Anderson questioned if there was any update on the proposed gravel pit on Storyland Road affecting the surface and ground water at the Landfill Site. Public Works Manager Adam Knapp is to contact Jp2g Consultants, who are doing the Landfill Expansion Review, and bring back any information to the next meeting.
11. **NEXT MEETING:**
 - i. April 5th, 2023 at 8:30 a.m.
12. **ADJOURNMENT**
Chair Humphries declared the meeting adjourned at 9:06 a.m.

CHAIR Doug Humphries

PUBLIC WORKS MGR Adam Knapp

RETURN TO AGENDA



Township of Horton COUNCIL / COMMITTEE REPORT

Title: Proposed 10 Year Road Network Capital Rehabilitation Plan	Date:	April 5th, 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES committee agree with Staff and recommend that Council adopt the proposed 2023 to 2033 Road Network Plans attached to this report.

AND THAT the TES committee accept the proposed maintenance strategies and costs savings data in this report as information.

BACKGROUND:

Staff have composed capital rehabilitation and operational maintenance plans from 2023 to 2033 for the Township's entire road network. A 2% yearly inflation rate has been applied to all events over the course of the plans.

The Paved Roads Capital Rehabilitation plan includes only three (3) end of life asset replacements over the next 10 years which are as follows:

- 2023 - Mullins Road from Johnston Rd to Eady Rd (HCB 1x)
- 2024 - Lime Kiln Road from Gillan Rd to 49 Lime Kiln Road (LCB)
- 2028 - Cobus Road extension from Bruce St to 226 Cobus Road (LCB)

The plans are attached to this report and Staff have prioritized projects based on the current PCR data while endeavoring to balance the costs per year and logistically plan projects in close vicinity to each other to mitigate mobilization costs. The objective of the plans is to maintain our network and extend the estimated useful life of our roads by 50% and promote opportunity to extend the paved road network within Horton Township as displayed in the proposed Cobus Road LCB extension in 2028 . Past 2028 the discussion of extending the paved surface of Lime Kiln Road may also become feasible, as the Township is relieved from the Johnston Road debenture. Staff highly recommend a 3rd party geotechnical analysis be performed on Lime Kiln Rd to ensure it's built to standard and satisfactory data is attained to upload the road to the County in the future. The estimated cost to pave (HCB 1x) Lime Kiln Road today with no base improvements is a minimum of \$1,000,000.

The deterioration graph and strategy for our HCB and LCB roadways are displayed below. All maintenance events shall be funded through the yearly paved road maintenance operating budget and all rehabilitation or replacement events shall be capital funded projects. The 2023 to 2033 operational maintenance plan only accounts for the funding necessary to support the maintenance strategies shown below and not for items such as cold patching, granular shouldering and shoulder sealing , these operations shall be funded through the yearly operating gravel budget and paved roads maintenance budget on an as needed basis.

RETURN TO AGENDA

Strategy

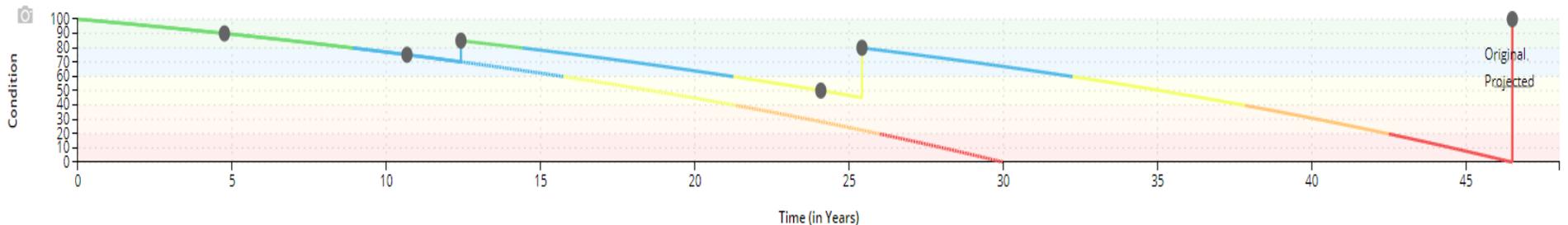
Age-Based Condition Method: Roads (HCB)

Lifecycle EUL: 30 Year(s) 0 Month(s)

Add Event (Condition Triggered): Minor Crack Sealing

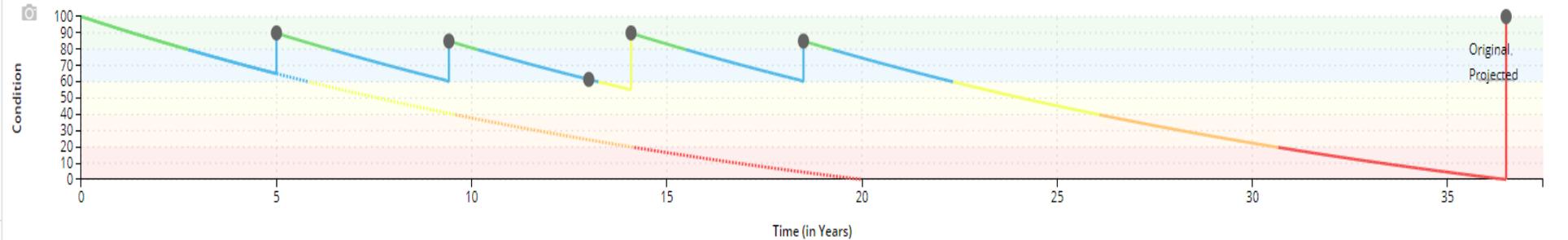
Lifecycle EUL (with events): 46 Year(s) 6 Month(s)

Age at Event	Name	Description	Event Class	Cost	Event Range / Trigger	Impact	Added EUL	Cost per Added Year	Actions
4 Years 9 Months	Minor Crack Sealing	Blow and Go Crack Sealing	Preventative Maintenance	\$0.50 (Per Unit)	90 to 95 Condition	No Impact	0 Months	\$0.00	<input type="button" value="Delete"/> <input type="button" value="Up"/> <input type="button" value="Down"/>
10 Years 8 Months	Major Crack Sealing with Scratch Coat	Blow and Go Crack Sealing with Scratch Coat Applied After Crack Sealing (Preparation Treatment for Fog Seal or Cape Seal)	Preventative Maintenance	\$5.00 (Per Unit)	75 to 80 Condition	No Impact	0 Months	\$0.00	<input type="button" value="Delete"/> <input type="button" value="Up"/> <input type="button" value="Down"/>
12 Years 5 Months	Fog Seal	"Clean Bond" Fog Seal application rate of 0.4 to 0.6 L/m3 with minor Scratch Coat Prep Treatment	Rehabilitation	\$14.00 (Per Unit)	70 to 80 Condition	Adds 15 Condition	5 Years 6 Months	\$2.55	<input type="button" value="Delete"/> <input type="button" value="Up"/> <input type="button" value="Down"/>
24 Years 1 Month	Scratch Coat	Apply HL3 Modified or Equivalent to Reduce Road Distortion as a Preparation Treatment for Cape Seal within 1 Year	Maintenance	\$2.50 (Per Unit)	50 to 55 Condition	No Impact	0 Months	\$0.00	<input type="button" value="Delete"/> <input type="button" value="Up"/> <input type="button" value="Down"/>
25 Years 5 Months	Cape Seal	Class 6 Aggregate Single Surface Treatment, HF 150 SP application rate 1.5 to 1.7 L/m3 with "Clean Bond" Fog Seal Overlay application rate of 0.4 to 0.6 L/m3 (1/4 Trap Rock add \$3 / LM)	Rehabilitation	\$45.00 (Per Unit)	45 to 50 Condition	Set to 80 Condition	11 Years	\$4.09	<input type="button" value="Delete"/> <input type="button" value="Up"/> <input type="button" value="Down"/>
46 Years 6 Months	<Asset Replacement>	End of life replacement	Replacement	\$0.00 (Fixed)	0 to 40 Condition	Set to 100 Condition	30 Years	\$0.00	Automatic



RETURN TO AGENDA

Age at Event	Name	Description	Event Class	Cost	Event Range / Trigger	Impact	Added EUL	Cost per Added Year	Actions
5 Years	Cape Seal	Class 6 Aggregate Single Surface Treatment, HF 150 SP application rate 1.5 to 1.7 L/m3 with "Clean Bond" Fog Seal Overlay application rate of 0.4 to 0.6 L/m3 (1/4 Trap Rock add \$3 / LM)	Rehabilitation	\$45.00 (Per Unit)	65 to 70 Condition	Set to 90 Condition	3 Years 8 Months	\$12.27	
9 Years 5 Months	Fog Seal	"Clean Bond" Fog Seal application rate of 0.4 to 0.6 L/m3 with minor Scratch Coat Prep Treatment	Rehabilitation	\$14.00 (Per Unit)	60 to 65 Condition	Set to 85 Condition	3 Years 9 Months	\$3.73	
13 Years	Scratch Coat	Apply HL3 Modified or Equivalent to Reduce Road Distortion as a Preparation Treatment for Fog Seal or Cape Seal	Maintenance	\$2.50 (Per Unit)	12 to 13 Years	No Impact	0 Months	\$0.00	Automatic
14 Years 1 Month	Cape Seal #2	Class 6 Aggregate Single Surface Treatment, HF 150 SP application rate 1.5 to 1.7 L/m3 with "Clean Bond" Fog Seal Overlay application rate of 0.4 to 0.6 L/m3 (1/4 Trap Rock add \$3 / LM)	Rehabilitation	\$45.00 (Per Unit)	55 to 60 Condition	Set to 90 Condition	5 Years 4 Months	\$8.44	
18 Years 6 Months	Fog Seal #2	"Clean Bond" Fog Seal application rate of 0.4 to 0.6 L/m3 with significant Scratch Coat Prep Treatment	Rehabilitation	\$14.00 (Per Unit)	60 to 65 Condition	Set to 85 Condition	3 Years 9 Months	\$3.73	
36 Years 6 Months	<Asset Replacement>	End of life replacement	Replacement	\$0.00 (Fixed)	0 to 40 Condition	Set to 100 Condition	20 Years	\$0.00	Automatic



RETURN TO AGENDA

McBride Road was recently replaced with HCB 1x, is approximately 1 kilometer long, and can be used to estimate the cost savings from this maintenance-based approach when comparing the annual requirements (without events) to the annual requirements (with events), as displayed in the McBride Road asset profile data below. Applying this average savings to our current 40.3 km of paved road network equates to a potential upset savings of \$90,069 per year or \$900,697 over the term of the proposed 10-year plan and includes an approximately 800 m LCB extension on Cobus Road. Through constant refining and research into new cost-effective rehabilitation methods and yearly assessment and revision of the plans per the assessed (PCR) pavement condition rating data the Township may increase the savings and life cycles beyond the amounts proposed in this report.

> AM > Inventory > Asset 667- McBride Road 1 | Horton | Township of Horton aknapp

Asset Profile

Profile Group: 2022 AMP	Profile: HCB
Lifecycle EUL: 30 Year(s) 0 Month(s)	Lifecycle EUL Override: 0 Year(s) 0 Month(s)

Annual Requirement (without events)

Replacement Cost: \$395,200.00	Lifecycle EUL: 30 Year(s) 0 Month(s)
Annual Requirement: \$13,173.33	

Annual Requirement (with events)

Replacement Cost: \$395,200.00	Event Cost (Capital): \$61,360.00
Event Cost (Operating): \$8,320.00	Event Cost (Growth): \$0.00
Total Replacement Cost: \$464,880.00	Lifecycle EUL (extended by events): 42 Year(s) 6 Month(s)
Annual Requirement: \$10,938.35	

Estimated Annual Requirement Savings Calculation

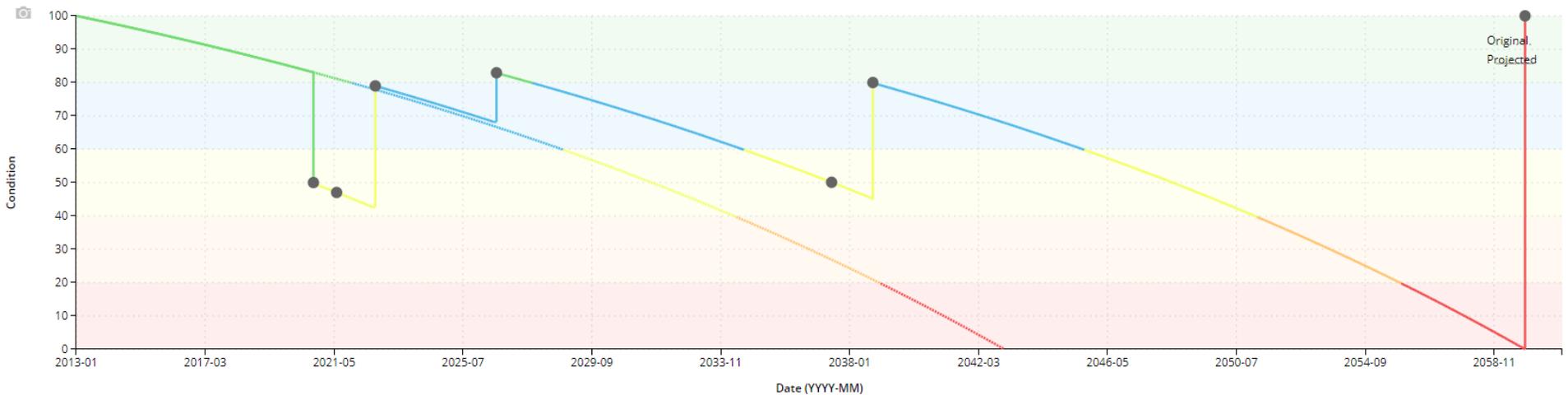
- \$13,173.33 - \$10,938.35 = \$2,234.98 per km.
- \$2,234.98 per km x 40.3 km of paved road network = \$90,069.70 per year.
- **\$90,069** per year x 10 years = **\$900,967** less annual requirements over the term of the plan.

RETURN TO AGENDA

The efficacy of implementing sound maintenance strategies can be further supported by the condition rating and cost savings of the work performed in Cotieville. The cost to rehabilitate 5 roads to a PCR above 75 was \$147,911.37 as displayed in the attached PW-2022-06 invoice. The cost to perform an asset replacement with new HCB 1x on one cross street, Leslie Avenue for an example , is estimated to cost \$140,600 and the cost to rehabilitate all streets in the area with HCB 1x is estimated at \$577,600 using 2022 benchmark costing. The graph below displays the PCR before and after the work performed on Leslie Avenue as well as the current maintenance strategy and replacement cost. Staff does not dispute that new pavement is advantageous, but the data exhibits the increased cost of minimal maintenance and single life cycle replacement strategies do not support financial sustainability for Horton and its residents.

> AM > Inventory > Asset 661- Leslie Avenue

2026-08-01 (Manual)	Fog Seal	"Clean Bond" Fog Seal application rate of 0.4 to 0.6 L/m3 with minor Scratch Coat Prep Treatment	Rehabilitation	\$5,180.00 , \$14.00/m	Capital	70 to 80 Condition	Adds 15 Condition	5 Years 5 Months	\$956.31
2037-06-01	Scratch Coat	Apply HL3 Modified or Equivalent to Reduce Road Distortion as a Preparation Treatment for Cape Seal within 1 Year	Maintenance	\$925.00 , \$2.50/m	Operating	50 to 55 Condition	No Impact	0 Months	\$0.00
2038-10-01	Cape Seal	Class 6 Aggregate Single Surface Treatment, HF 150 SP application rate 1.5 to 1.7 L/m3 with "Clean Bond" Fog Seal Overlay application rate of 0.4 to 0.6 L/m3 (1/4 Trap Rock add \$3 / LM)	Rehabilitation	\$16,650.00 , \$45.00/m	Capital	45 to 50 Condition	Set to 80 Condition	11 Years	\$1,513.64
2059-11-01	<Asset Replacement>	End of life replacement	Replacement	\$140,600.00 (Fixed)	Capital	0 to 40 Condition	Set to 100 Condition	30 Years	\$4,686.67



RETURN TO AGENDA

The deterioration graph and strategy for our gravel roadways is displayed below. All rehabilitation events shall be capital funded through the yearly gravel haul and supply program. The funding for this program is currently \$55,000 per year and should be adjusted to \$60,000 per year by 2028.

Spot graveling shall continue to be funded through the yearly operational gravel fund on an as needed basis.

Staff advise that short length gravel roadways with minimal commercial or agricultural traffic volume such as Collins Road and Pallen Road should be considered for LCB surfacing, when logistically practicable, within the paved roads capital rehabilitation plan. The cost per year to maintain an LCB surface on these roads would be less when factoring in calcium application and grading time compared to maintaining the current gravel surface.

The current cost to double surface Pallen Road and Cobus Rd is estimated at \$40,000 and with the low traffic volume they shouldn't require a single surface maintenance treatment for 6-8 years. Staff estimate the total cost to attain a 30-year LCB life cycle from these 2 roads at \$60,000 or \$1000.00 per year for each road. The cost to maintain the gravel through the gravel haul and supply program is \$661.60 plus a minimum of \$200 in calcium and \$350 in grader ,water truck, and calcium flake application truck operator time and fuel which brings the estimated total to maintain the gravel to \$1,211.60 per year .

Strategy

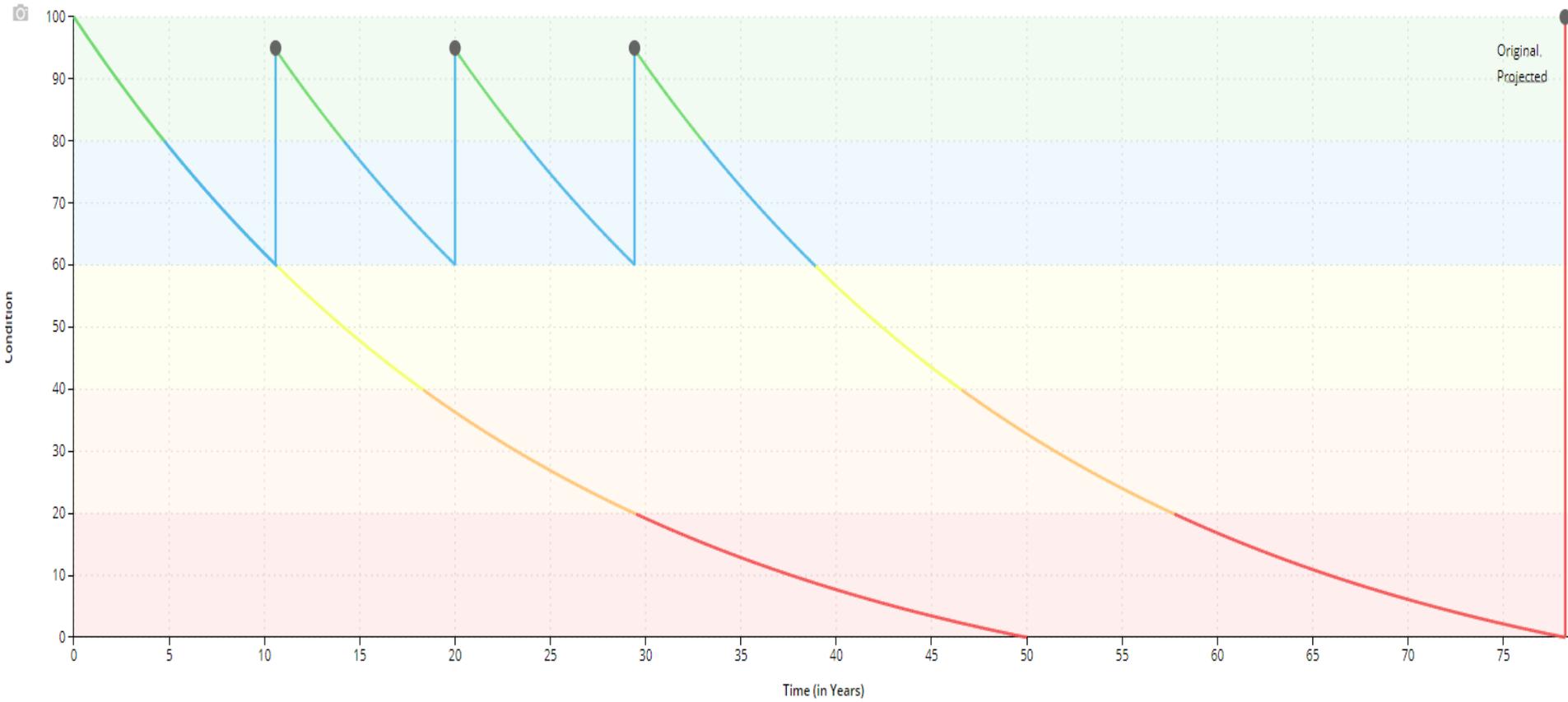
Age-Based Condition Method: Roads (Gravel)

Add Event (Condition Triggered): Gravel Haul and Supply

Lifecycle EUL: 50 Year(s) 0 Month(s)

Lifecycle EUL (with events): 78 Year(s) 3 Month(s)

Age at Event	Name	Description	Event Class	Cost	Event Range / Trigger	Impact	Added EUL	Cost per Added Year	Actions
10 Years 7 Months	Gravel Haul and Supply	Yearly Supply Tender	Rehabilitation	\$9.00 (Per Unit)	60 to 65 Condition	Set to 95 Condition	9 Years 5 Months	\$0.96	<input type="button" value="trash"/> <input type="button" value="up"/> <input type="button" value="down"/>
20 Years	Gravel Haul and Supply #2	Yearly Supply Tender	Rehabilitation	\$9.00 (Per Unit)	60 to 65 Condition	Set to 95 Condition	9 Years 5 Months	\$0.96	<input type="button" value="trash"/> <input type="button" value="up"/> <input type="button" value="down"/>
29 Years 5 Months	Gravel Haul and Supply #3	Yearly Supply Tender	Rehabilitation	\$9.00 (Per Unit)	60 to 65 Condition	Set to 95 Condition	9 Years 5 Months	\$0.96	<input type="button" value="trash"/> <input type="button" value="up"/> <input type="button" value="down"/>
78 Years 3 Months	<Asset Replacement>	End of life replacement	Replacement	\$0.00 (Fixed)	0 to 40 Condition	Set to 100 Condition	50 Years	\$0.00	Automatic



RETURN TO AGENDA

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

As displayed in the attached 2023 to 2033 Road Network Plans

ATTACHMENTS:

2023 to 2033 Paved Roads Capital Rehabilitation Plan
2023 to 2033 Paved Roads Operational Maintenance Plan
2023 to 2033 Gravel Roads Capital Rehabilitation Plan
Greenwood Invoice PW 2022-06

CONSULTATIONS:

N/A

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

2023 to 2033 Paved Roads Capital Rehabilitation Plan

Table 1 of 1

	Event Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Road Network												
HCB			-				-					
627 - Cotieville Road	\$10,131.41	-	-	-	-	-	-	-	\$10,131.41	-	-	-
635 - Elliott Crescent	\$11,069.16	-	-	-	-	\$8,280.61	-	-	-	\$2,788.55	-	-
638 - Fraser Road	\$21,980.33	-	-	-	-	-	-	-	-	\$21,980.33	-	-
639 - Garden of Eden Road	\$67,301.81	-	-	-	\$67,301.81	-	-	-	-	-	-	-
645 - Grantham Road	\$8,604.67	-	-	-	-	-	-	-	-	-	\$8,604.67	-
647 - Harold Avenue	\$5,348.49	-	-	-	\$5,348.49	-	-	-	-	-	-	-
648 - Harper Avenue	\$4,605.64	-	-	-	\$4,605.64	-	-	-	-	-	-	-
652 - Jamieson Lane	\$44,254.86	-	-	\$32,772.60	-	-	-	-	-	\$11,482.26	-	-
656 - Johnston Road	\$77,991.26	-	-	-	-	-	-	-	-	-	-	\$77,991.26
661 - Leslie Avenue	\$5,497.06	-	-	-	\$5,497.06	-	-	-	-	-	-	-
667 - McBride Road	\$16,724.86	\$350,000.00	-	-	-	-	-	-	\$16,724.86	-	-	-
671 - Mullins Rd (West)	\$546,516.00		-	-	-	-	-	-	-	-	-	-
679 - Pinnacle Rd (West)	\$30,113.58	-	-	-	-	-	-	\$30,113.58	-	-	-	-
680 - Pinnacle Rd (Middle)	\$27,674.64	-	-	\$27,674.64	-	-	-	-	-	-	-	-
681 - Pinnacle Rd (East)	\$53,342.26	-	-	-	-	\$53,342.26	-	-	-	-	-	-
685 - Sherwood St	\$3,565.66	-	-	-	\$3,565.66	-	-	-	-	-	-	-
688 - Thompson Rd	\$99,383.90	-	-	-	-	-	-	-	-	-	\$99,383.90	-
691 - Whitton Rd (South)	\$27,305.48	-	-	-	-	-	-	-	-	-	-	\$27,305.48
692 - Whitton Rd (North)	\$109,351.62	-	-	\$23,304.96	-	-	-	-	-	-	\$86,046.66	-
LCB												
641 - Gerald St	\$23,324.78	-	-	-	\$17,535.40	-	-	-	\$5,789.38	-	-	-
644 - Goshen Road	\$184,924.82	-	\$137,644.92	-	-	-	-	-	\$47,279.90	-	-	-
650 - Humphries Rd	\$14,612.83	-	-	-	\$14,612.83	-	-	-	-	-	-	-
809 - Cobus Rd	\$352,300.79	-	-	-	-	-	\$287,396.65	-	-	-	-	\$64,904.14
812 - Lime Kiln Road	\$75,756.29	-	\$61,799.76	-	-	-	-	\$13,956.53	-	-	-	-
813 - Madeleine Street	\$5,860.14	-	-	-	\$4,383.85	-	-	-	-	\$1,476.29	-	-
Road Network Total	\$1,631,026.34	\$350,000.00	\$199,444.68	\$83,752.20	\$122,850.74	\$61,622.87	\$287,396.65	\$44,070.11	\$79,925.55	\$37,727.43	\$194,035.23	\$170,200.88

2023 to 2033 Paved Roads Operational Maintenance Plan

Table 1 of 1

	Event Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Road Network												
HCB												
627 - Cotieville Road	\$4,260.96	\$642.60	-	-	-	-	-	\$3,618.36	-	-	-	-
628 - Dregas Street	\$1,464.19	-	-	-	-	\$220.82	-	-	-	-	-	\$1,243.37
635 - Elliott Crescent	\$920.07	-	-	-	\$920.07	-	-	-	-	-	-	-
638 - Fraser Road	\$9,062.99	\$1,366.80	-	-	-	-	-	\$7,696.19	-	-	-	-
639 - Garden of Eden Road	\$24,036.36	-	-	\$24,036.36	-	-	-	-	-	-	-	-
645 - Grantham Road	\$1,334.61	-	-	-	\$865.95	-	-	-	-	\$468.66	-	-
652 - Jamieson Lane	\$6,069.00	\$4,284.00	\$1,785.00	-	-	-	-	-	-	-	-	-
653 - Jane Street	\$951.72	-	-	-	-	\$143.53	-	-	-	-	-	\$808.19
656 - Johnston Road	\$32,515.42	\$4,661.40	-	-	-	-	-	-	-	-	\$27,854.02	-
659 - Knight St	\$2,781.96	-	-	-	-	\$419.55	-	-	-	-	-	\$2,362.41
665 - Margaret Street	\$1,537.40	-	-	-	-	\$231.86	-	-	-	-	-	\$1,305.54
667 - McBride Road	\$7,033.97	\$1,060.80	-	-	-	-	-	\$5,973.17	-	-	-	-
671 - Mullins Rd (West)	\$1,587.89	-	-	-	-	-	\$1,587.89	-	-	-	-	-
673 - Nadobny Lane	\$4,538.99	-	-	-	-	\$684.53	-	-	-	-	-	\$3,854.46
676 - Paddy Street	\$951.72	-	-	-	-	\$143.53	-	-	-	-	-	\$808.19
679 - Pinnacle Rd (West)	\$10,754.85	-	-	-	-	-	\$10,754.85	-	-	-	-	-
680 - Pinnacle Rd (Middle)	\$4,845.00	-	\$4,845.00	-	-	-	-	-	-	-	-	-
681 - Pinnacle Rd (East)	\$19,050.81	-	-	-	\$19,050.81	-	-	-	-	-	-	-
683 - Pucker St	\$11,127.84	-	-	-	-	\$1,678.20	-	-	-	-	-	\$9,449.64
687 - Thomsonhill Cemetery Street	\$2,269.50	-	-	-	-	\$342.27	-	-	-	-	-	\$1,927.23
688 - Thompson Rd	\$40,857.08	\$6,058.80	-	-	-	-	-	-	\$34,798.28	-	-	-
691 - Whitton Rd (South)	\$11,192.74	\$1,632.00	-	-	-	-	-	-	-	\$9,560.74	-	-
692 - Whitton Rd (North)	\$12,846.64	\$8,160.00	-	-	-	-	-	-	-	\$4,686.64	-	-
LCB												
644 - Goshen Road	\$7,350.00	\$7,350.00	-	-	-	-	-	-	-	-	-	-
650 - Humphries Rd	\$914.25	-	-	-	-	-	-	-	-	-	-	\$914.25
809 - Cobus Rd	\$1,000.00	\$1,000.00	-	-	-	-	-	-	-	-	-	-
812 - Lime Kiln Road	\$675.00	\$675.00	-	-	-	-	-	-	-	-	-	-
Cumulative Total	\$221,930.96	\$36,891.40	\$6,630.00	\$24,036.36	\$20,836.83	\$3,864.29	\$12,342.74	\$17,287.72	\$34,798.28	\$14,716.04	\$27,854.02	\$22,673.28

2023 to 2033 Gravel Roads Capital Rehabilitation Plan

Table 1 of 1

	Event Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Road Network												
Gravel												
623 - Bennett Lafont Road	\$12,859.29	-	-	-	\$12,859.29	-	-	-	-	-	-	-
624 - Bingham Dr	\$9,121.92	-	-	-	-	-	\$9,121.92	-	-	-	-	-
625 - Cobus Rd	\$35,275.38	-	-	-	-	\$35,275.38	-	-	-	-	-	-
626 - Collins Road	\$3,268.93	-	-	-	-	-	-	-	\$3,268.93	-	-	-
629 - Dugald Rd	\$12,199.04	-	-	-	-	-	-	\$12,199.04	-	-	-	-
630 - Eady Rd (North)	\$63,717.30	-	\$29,027.16	-	-	-	-	-	-	-	-	\$34,690.14
631 - Eady Rd (Middle)	\$29,980.70	-	-	-	-	-	-	\$29,980.70	-	-	-	-
632 - Eady Rd (South)	\$4,652.18	-	-	-	-	-	-	\$4,652.18	-	-	-	-
633 - Early Rd	\$24,253.35	-	-	-	-	-	-	-	\$24,253.35	-	-	-
634 - Elliott Crescent	\$1,828.49	-	-	-	-	-	-	-	-	\$1,828.49	-	-
636 - Farrells Landing Road	\$1,398.26	-	-	-	-	-	-	-	-	\$1,398.26	-	-
637 - Ferguson Rd	\$19,790.73	-	-	-	-	-	-	-	-	\$19,790.73	-	-
640 - Garden of Eden Rd	\$45,913.64	-	-	-	-	-	\$45,913.64	-	-	-	-	-
642 - Gordie Road	\$2,151.17	-	-	-	-	-	-	-	-	\$2,151.17	-	-
643 - Goshen Rd	\$10,930.40	-	-	-	-	\$10,930.40	-	-	-	-	-	-
646 - Guest Road	\$2,894.69	-	-	-	-	-	-	\$2,894.69	-	-	-	-
649 - Horton School Road	\$2,186.08	-	-	-	-	\$2,186.08	-	-	-	-	-	-
651 - Humphries Rd	\$58,146.03	-	-	-	-	-	-	-	-	-	\$58,146.03	-
654 - Jim Barr Rd (South)	\$2,292.21	-	-	\$2,292.21	-	-	-	-	-	-	-	-
655 - Jim Barr Rd (North)	\$18,146.66	-	-	\$18,146.66	-	-	-	-	-	-	-	-
657 - Kasaboski Rd	\$4,517.45	-	-	-	-	-	-	-	-	\$4,517.45	-	-
658 - Keith Road	\$1,075.58	-	-	-	-	-	-	-	-	\$1,075.58	-	-
660 - Lavallee Road	\$24,253.35	-	-	-	-	-	-	-	\$24,253.35	-	-	-
662 - Lime Kiln Road	\$46,863.05	-	\$21,349.01	-	-	-	-	-	-	-	-	\$25,514.04
663 - Macs Lane	\$912.19	-	-	-	-	-	\$912.19	-	-	-	-	-
664 - Madeleine Street	\$1,828.49	-	-	-	-	-	-	-	-	\$1,828.49	-	-
666 - Mcbride Rd	\$10,002.92	-	-	-	-	-	-	-	-	\$10,002.92	-	-
668 - McInnes Road	\$8,767.70	-	-	-	\$8,767.70	-	-	-	-	-	-	-
669 - McCreary Lane	\$1,613.37	-	-	-	-	-	-	-	-	\$1,613.37	-	-
670 - McQuity Road	\$537.79	-	-	-	-	-	-	-	-	\$537.79	-	-
672 - Mullins Rd (East)	\$20,457.97	-	-	-	\$20,457.97	-	-	-	-	-	-	-
674 - Orin Road (West)	\$26,742.44	-	-	\$26,742.44	-	-	-	-	-	-	-	-
675 - Orin Road (East)	\$912.19	-	-	-	-	-	\$912.19	-	-	-	-	-

2023 to 2033 Gravel Roads Capital Rehabilitation Plan

	Event Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
677 - Pallen Road	\$2,101.19	-	-	\$2,101.19	-	-	-	-	-	-	-	-
678 - Pastway Road	\$8,684.06	-	-	-	-	-	-	\$8,684.06	-	-	-	-
682 - Price Road	\$3,690.73	-	-	-	-	-	-	-	\$3,690.73	-	-	-
684 - Ruttan Rd	\$6,017.05	-	-	\$6,017.05	-	-	-	-	-	-	-	-
686 - Storie Rd	\$13,638.65	-	-	-	\$13,638.65	-	-	-	-	-	-	-
689 - Tinswood Road	\$8,497.11	-	-	-	-	-	-	-	-	\$8,497.11	-	-
Cumulative Total	\$552,119.73	-	\$50,376.17	\$55,299.55	\$55,723.61	\$48,391.86	\$56,859.94	\$58,410.67	\$55,466.36	\$53,241.36	\$58,146.03	\$60,204.18



RECEIVED
 SEP 16 2022
 -----177 MacKay Street, Pembroke, Ontario K8A 1C2

INVOICE

16

177 MacKay Street, Pembroke, Ontario K8A 1C2
 Email greenwoodpaving@nrtco.net

INVOICE
0000046234

DATE
 August 24, 2022

Phone 613-735-4101
 613-432-8555
 613-623-9998
 Fax 613-735-7407

SOLD TO
 Township of Horton
 R.R. #5
 RENFREW ON K7V 3Z8

DELIVERED TO
 Cotieville Streets
 Project No. PW 2022-06
 ON

ORDER DATE	PURCHASE ORDER NO.	KP	CUSTOMER NO.	ORDER NO.
24-Aug-22	PW 2022-06	KP	TOWHOR	0000038816
DESCRIPTION			UNIT PRICE	AMOUNT
Cotieville Streets				
Project No. PW 2022-06				
Full depth reclamation of existing 50mm depth high class bituminous surface				
2,870 m2 @ \$2.85/m2			2.85	8,179.50
Supply, application and compaction of 75mm Granular 'A' lift				
892.72 t @ \$28.00/t			28.00	24,996.16
Supply and apply Double Surface Treatment				
3,913 m2 @ \$9.80/m2			9.80	38,347.40
Supply and apply Single Surface Treatment				
7,710 m2 @ \$4.85/m2			4.85	37,393.50
Supply and apply Fog Seal				
10,934 m2 @ \$1.69/m2			1.69	18,478.46
CONTINUED				
			Sub-Total	
			H.S.T.	
			Total Due:	



INVOICE

17

177 MacKay Street, Pembroke, Ontario K8A 1C2
Email greenwoodpaving@nrtco.net

INVOICE
0000046234

DATE
August 24, 2022

Phone 613-735-4101
613-432-8555
613-623-9998
Fax 613-735-7407

SOLD TO
Township of Horton
R.R. #5
RENFREW ON K7V 3Z8

DELIVERED TO
Cotieville Streets
Project No. PW 2022-06
ON

ORDER DATE 24-Aug-22	PURCHASE ORDER NO. PW 2022-06	KP	CUSTOMER NO. TOWHOR	ORDER NO. 0000038816
-------------------------	----------------------------------	----	------------------------	-------------------------

DESCRIPTION	UNIT PRICE	AMOUNT
Driveway tie-ins and restoration 1 Lump Sum @ \$3,500.00/LS	3,500.00	3,500.00
	Sub-Total	130,895.02
	H.S.T.	\$17,016.35
	Total Due:	\$147,911.37



Township of Horton COUNCIL / COMMITTEE REPORT

Title: Updated 2023 Landfill Expansion Feasibility Work Plan Funding	Date:	April 5th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Environmental Services

RECOMMENDATIONS:

THAT the TES Committee recommend to Council that the Capital funding allotment requested for the 2023 landfill expansion feasibility work plan be revised from the initial amount requested, \$22,080.20, in the 2023 Capital budget to \$32,137.20 including HST.

AND THAT \$32,137.20 be allocated from the Environmental Reserves.

BACKGROUND:

On March 13th 2023 the MECP completed the review of the letter entitled "Horton Landfill Site, Expansion Feasibility Assessment, ECA No. A412505" dated July 20, 2022.

The review resulted in the following conclusions from the MECP.

- The reviewer acknowledges the reduction in the eastward extension of the Horton LFS in order to protect Stream 2 and the Pond. However, it is noted that these two surface water features would have to be added to the WDS' surface water monitoring program and trigger mechanism. Should unacceptable landfill related impacts be observed in either feature, contingency and/or remedial measures would be required.
- In regard to the filling of the Stream 1 wet area, any alteration or destruction of surface water features at the site should be in accordance with proper permits from MNR (or DFO if verified fish habitat).
- The reviewer is still of the opinion that a MECP Species at Risk (SAR) biologist should be consulted in regard to the proposed site expansion to ensure that no SAR or associated habitat will be harmed.

As a result of the MECP conclusions, the original work plan utilized by Staff to compile the requested Capital funding has been revised by JP2G as shown below:

RETURN TO AGENDA

Original 2023 Work Plan

Task	Cost (HST Excluded)
1. Project Management	\$1,500.00
2. Upgrade Concept Plan	\$2,000.00
3. Monitoring Program	\$8,340.00
4. Site Investigation	\$1,200.00
5. MECP Consultation	\$3,500.00
6. Well Upgrades	\$0.00
7. Preliminary Stormwater Management	\$3,000.00
Total	\$19,540.00

Revised 2023 Work Plan per MECP the Conclusions

Task	Cost (HST Excluded)
1. Project Management	\$1,500.00
2. Upgrade Concept Plan	\$2,000.00
3. Monitoring Program	\$8,340.00
4. Site Investigation	\$1,200.00
5. MECP Consultation	\$3,500.00
6. Well Upgrades	\$0.00
7. Species At Risk Assessment	\$5,900.00
8. Preliminary Stormwater Management	\$6,000.00
9. Geotechnical Study	TBD
Total	\$28,440.00

The total amounts shown above exclude HST.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

\$32,137.20 including HST from the Environmental Reserves.

ATTACHMENTS:

2023_03_23 - 2023 Work Plan Proposal

RETURN TO AGENDA

CONSULTATIONS:

Kevin Mooder – JP2G Consultants Inc.

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

Jp2g No. 20-6128C

November 3, 2022 Revised March 23, 2023

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

Attention: Adam Knapp
Public Works Manager

**Re: Horton Landfill Site
Expansion Feasibility Study
2023 Work Plan**

Dear Adam,

Further to our November 3, 2022 work plan for the 2023 site compliance monitoring and reporting, we are pleased to describe tasks and an estimate of probable costs to continue the Expansion Feasibility Study.

The Expansion Feasibility Study letters were filed with MECP and Mr. Barr on September 9, 2021. Based on the responses to date summarized in Item 5, we propose the following:

1. Project Management

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

2. Upgrade Expansion Concept Plan

Jp2g revised the plan to increase the distance to the surface water features. We will make any further changes pending MECP comments.

3. Water Quality Monitoring Program

Under the current ECA monitoring is to be conducted biennially (every 2 years). In reference to the Groundwater Reviewer comments on the expansion feasibility study dated December 13, 2021 the Ministry requested that 21 monitoring wells be sampled and analysed for the full suite of parameters, and the Barr well is included in the site compliance program. The analysis includes the parameters in Schedule 5, Column 1 (Landfill Standards, 1993), in addition to strontium and hardness. The leachate well 93-7B also includes VOC analysis. Sampling is to occur annually in the spring.

The Surface Water program includes the sampling of two (2) locations SW-17 and SW-18, and the Barr Creek are included in the site compliance program. Sampling is annually in the spring and fall, analysis includes Schedule 5, Column 3 (Landfill Standards, 1993). This was accepted by MECP in their review dated October 21, 2021.

RETURN TO AGENDA

4. Site Investigation

To address MECP concerns with the high groundwater table at the proposed expansion of the landfilling area, we propose to install three (3) standpipes to allow water level measurements during the spring 2023. These will be located to avoid damage during site operations. Measurements will be taken during the spring monitoring event and on occasion thereafter in April/May (spring) and then in August (summer).

5. MECP Consultation

The following summarizes consultation to date:

September 9, 2021	Preliminary Expansion Feasibility Study to MECP
January 4, 2022	MEPC email to Township with the Groundwater comments dated December 13, 2021
March 17, 2022	Jp2g response to Groundwater comments
March 22, 2022	MECP email with Surface Water comments on the 2019-2020 BMR dated October 21, 2021
March 23, 2022	Jp2g response to Surface Water comments
March 29, 2022	MECP email with Surface Water comments on the Feasibility Study dated October 22, 2021.
March 29, 2022	Jp2g response to Surface Water comments
June 1, 2022	Jp2g/MECP telephone conversation and email of pictures May 19, 2022 which hadn't been sent
July 20, 2022	Jp2g response to Surface Water comments
October 26, 2022	MECP email with Groundwater review comments dated September 15, 2022
October 31, 2022	Jp2g filed a revised Expansion Plan
December 22, 2022	Jp2g request status of review
March 13, 2023	MECP email Surface Water review comments

Upon receipt of the Surface Water review comments to our July 20, 2022 submission a comprehensive response will be filed to address the recent Groundwater and Surface Water comments by early April, 2023. It is assumed this submission combined with the 2021-2022 Biennial Report to be filed on or before April 30, 2023 will address the MECP comments and concerns.

6. Well Upgrades

Monitoring wells 96-11A and B extend beyond the protective steel casing. These will be cut during the spring monitoring event and the new elevation recorded for future water level measurements. Monitoring well 91-5 will be reviewed (find well water record) and potentially added into the sampling program in the future as requested by MECP. The Ministry has also asked that a new well be installed between the expanded fill area and wells G96-14A and B. This would be conditional upon approval of an expansion. There are no additional costs for these well upgrades in 2023.

7. Species At Risk (SAR) Assessment

A scoped Environmental Impact Study (EIS) will be conducted to assess the natural heritage features on and adjacent to the proposed expansion area and provide mitigation measures to minimize impact the Stream 2 and pond environments. The EIS will be initiated through consultation by our staff biologist with the MECP SAR biologist. The activities will include:

- Pre-consultation with Ministry regarding SAR and complete a background/desktop review of available information for the subject lands.
- Site visits in spring/summer to:
 - Review and document the existing site conditions of the subject lands and adjacent lands, surface water inspection and delineation.
 - Complete a vegetation inventory (including survey for butternut and cavity trees for bats) and delineate vegetation communities on the subject lands.
 - Complete two (2) daytime breeding bird surveys (between late May and early July).
 - Complete three (3) night-time surveys for eastern whip-poor-will (May/June).
- Preparation of an EIS report to address the impact on any species at risk or their habitat as well as on any natural heritage features on/adjacent to the subject lands as a result of the landfill expansion. The EIS will include mitigation measures and recommendations to support the landfill expansion proposal. Sketches showing the location of the subject lands, sampling points and site features on the subject lands will accompany the report
- Budget does not include:
 - Any other SAR surveys that may be required which will be determined after initial site visit.
 - A Butternut Health Assessment if butternut trees are found.
 - Bat maternal or bat exit surveys.
 - Any fisheries assessments that may be required.
 - Any permit/authorizations and associated compensation that may be required.
 - DFO and MRNF consultation.

8. Preliminary Stormwater Management

The MECP email dated May 19, 2022 indicated that a number of technical reports would be required to support an application for expansion, including a hydrogeological study to demonstrate the landfilling will not cause negative impacts on the groundwater aquifer. This study will be required for the application for expansion. In addition, a surface water assessment and stormwater plan (potential update to the soak pit design) is required as part of the feasibility study. Jp2g will complete a preliminary stormwater management plan to confirm the feasibility of the expansion and what if any changes would be needed for the soak pit or a drainage plan. The assessment will include a flow calculation using Visual Otthymo to revise the storage quantity and prepare an addendum to the Stantec May 23, 2013 report. This study could be differed to 2024.

9. Geotechnical Study

The MECP email May 19, 2022 indicated that possibly a geotechnical study would be required to demonstrate that the base fill material application for the expansion would not result in significant settlement of the waste mound. Pending Ministry approval of the fill elevation of 161.5m a test pit program and soil characterization of the native soil will be completed to assess the feasibility of the waste mound design. The scope of work to be determined (TBD) when the design is finalized.

2023 Work Plan

Task	Cost (HST Excluded)
1. Project Management	\$1,500.00
2. Upgrade Concept Plan	\$2,000.00
3. Monitoring Program	\$8,340.00
4. Site Investigation	\$1,200.00
5. MECP Consultation	\$3,500.00
6. Well Upgrades	\$0.00
7. Species At Risk Assessment	\$5,900.00
8. Preliminary Stormwater Management	\$6,000.00
9. Geotechnical Study	TBD
Total	\$28,440.00

Trusting this is satisfactory.

Yours truly,
Jp2g Consultants Inc.



Kevin Mooder, MCIP, RPP
Project Manager



Andrea Sare, C.Tech., EP
Environmental Consultant



Helena Vaughan, B.Sc (Hons.)
Environmental Technician II



Township of Horton COUNCIL / COMMITTEE REPORT

Title: WM 2020-01 Contract Termination and Depot Recycling Contract	Date:	April 12th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Environmental

RECOMMENDATIONS:

THAT the TES committee recommend to Council that Staff notify Emterra Environmental that our current curbside collection and depot collection contract shall be terminated as of June 30th at 11:59 pm, 2023.

AND THAT Staff are directed to contract Circular Materials Ontario's, CMO's, curbside collection contractor to collect depot recycling at the Township 's Landfill site for residential and Industrial, Commercial and Institutional, ICI, recycling.

BACKGROUND:

The Township of Horton Transitions to producer-based responsibility for recycling on July 1st 2023 and received confirmation that CMO shall contract Emterra to perform curbside collection.

The Township has contracted with CMO to collect recyclables at our landfill depot and be compensated for the collection less 3.64% for non-eligible source deductions.

The Township held a public meeting, and all of our ICI rate payers were invited to voice their opinions on how the Township could continue to service them during transition and beyond. No rate payers attended, and Council resolved that depot collection only would be the best method to continue to ensure our ICI rate payers have a recycling outlet.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

Per the Master Service Agreement with CMO

ATTACHMENTS:

Horton, Township of - Contractor for Residence & Facility Collection
Acceptance email Horton Township Depot Usage ICI v Residential MPAC Calculation

CONSULTATIONS:

N/A

RETURN TO AGENDA

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

From: [Cullen Hollister](#)
To: [Adam Knapp](#); [Sherry Arcaro](#); [Circular Materials Operations](#)
Cc: [Hope Dillabough](#); [Clayton Sampson](#); [Kent Hollister](#); [Muna Sayid](#)
Subject: Re: Horton Township Depot Usage ICI v Residential MPAC Calculation
Date: January 18, 2023 5:21:18 PM
Attachments: [image002.png](#)

Hi Adam,

Your request for the modified rate for Horton Township for your Depot Non-Eligible Source Deduction from 25% to 3.64% is approved as supported by the documents provided.

The Procurement team will adjust your Statement of Work accordingly, prior to execution of the agreement .

Thanks,

Cullen Hollister
Director - CCS & RLG Contract Mgmt.
Circular Materials Ontario

From: [Circular Materials Operations](#)
To: [Hope Dillabough](#); [Adam Knapp](#); [Nathalie Moore](#); [Nikky Dubeau](#)
Subject: Horton, Township of - Contractor for Residence & Facility Collection
Date: March 15, 2023 8:10:40 PM

Hi,

In preparation for transition to the new blue box framework, we are writing to inform you that the blue box residence and facility contractor for Township of Horton is Emterra Environmental.

Our contractor will begin services as of Township of Horton's transition date of July 1, 2023.

If you have any questions, please contact us at operations@circularmaterials.ca.

Thank you,

Circular Materials

Caution: This is an external email and may be malicious. Please take care when clicking links or opening attachments. Do not enter your password into web pages you are not familiar with.