



Waste Export Cost Model
Algonquin Highlands Waste Management Plan
Muskoka Containerized Services

Assumptions:
25 Year Amortization Period
5.0% OSIFA Interest Rate
1.6% population growth per year
\$90,000 Compactor units (2)
\$130,000 Transfer station
\$32 cost/tonne waste
\$63 cost/tonne recyclables
\$321 lift rate
\$100 tipping fee
75 km Distance from Maple Lake to MCS in Bracebridge

Scenario: If Hawk Lake and Dorset are transfer stations (in addition to main transfer station at Maple Lake)

Table with 27 columns (years 2010-2034, Total, Total Cost/hh, Average Annual Cost, Average Cost/Tonne, Average Annual Cost/hh) and rows for Capital Costs, Waste Tonnage, Operating Costs, and TOTAL.

Scenario: If Dorset is the only transfer station (in addition to main transfer station at Maple Lake)

Table with 27 columns (years 2010-2034, Total, Total Cost/hh, Average Annual Cost, Average Cost/Tonne, Average Annual Cost/hh) and rows for Capital Costs, Waste Tonnage, Operating Costs, and TOTAL.

Scenario: If there are no transfer stations in addition to the main transfer station at Maple Lake

Table with 27 columns (years 2010-2034, Total, Total Cost/hh, Average Annual Cost, Average Cost/Tonne, Average Annual Cost/hh) and rows for Capital Costs, Waste Tonnage, Operating Costs, and TOTAL.



Waste Export Cost Model
Algonquin Highlands Waste Management Plan
BFI (Midhurst, On)

Assumptions:

Table with 2 columns: Assumption and Value. Includes 25 Year Amortization Period (\$88 cost/tonne), 5.0% OSIFA Interest Rate (\$875 lift rate), 1.6% population growth per year (\$95 tipping fee), \$90,000 Compactor units (2), \$130,000 Transfer station, and 175 km Distance from Maple Lake to BFI.

Scenario: If Hawk Lake and Dorset are transfer stations (in addition to main transfer station at Maple Lake)

Table showing cost breakdown for Scenario: If Hawk Lake and Dorset are transfer stations. Columns include years 2010-2034, Total, Total Cost / hh, Average Annual Cost, Average Cost / Tonne, and Average Annual Cost / hh. Rows include Capital Costs, Waste Tonnage, Operating Costs, and a TOTAL row.

Scenario: If Dorset is the only transfer station (in addition to main transfer station at Maple Lake)

Table showing cost breakdown for Scenario: If Dorset is the only transfer station. Columns include years 2010-2034, Total, Total Cost / hh, Average Annual Cost, Average Cost / Tonne, and Average Annual Cost / hh. Rows include Capital Costs, Waste Tonnage, Operating Costs, and a TOTAL row.

Scenario: If there are no transfer stations in addition to the main transfer station at Maple Lake

Table showing cost breakdown for Scenario: If there are no transfer stations in addition to the main transfer station at Maple Lake. Columns include years 2010-2034, Total, Total Cost / hh, Average Annual Cost, Average Cost / Tonne, and Average Annual Cost / hh. Rows include Capital Costs, Waste Tonnage, Operating Costs, and a TOTAL row.





**Waste Export Cost Model**  
**Algonquin Highlands Waste Management Plan**  
**Summary of Cost Model Results**

Assumes Maple Lake is the central transfer station

<b>Scenario: If there are no transfer stations in addition to the main transfer station at Maple Lake Waste</b>						
	Total Operating Cost	Total Cost	Total Cost / hh	Average Annual Cost	Average Cost / Tonne	Average Annual Cost / hh
MCS	\$7,756,000	\$8,900,000	\$1,980	\$360,000	\$374	\$79
BFI-Midhurst	\$8,952,000	\$10,090,000	\$2,250	\$410,000	\$425	\$90
Lafleche	\$11,030,000	\$12,190,000	\$2,710	\$490,000	\$513	\$108

<b>Scenario: If Dorset is the only transfer station (in addition to main transfer station at Maple Lake) Waste</b>						
	Total Operating Cost	Total Cost	Total Cost / hh	Average Annual Cost	Average Cost / Tonne	Average Annual Cost / hh
MCS	\$10,676,000	\$11,990,000	\$2,670	\$480,000	\$505	\$107
BFI-Midhurst	\$11,872,000	\$13,260,000	\$2,950	\$540,000	\$558	\$118
Lafleche	\$13,950,000	\$15,340,000	\$3,410	\$620,000	\$646	\$136

<b>Scenario: If Hawk Lake and Dorset are transfer stations (in addition to main transfer station at Maple Lake) Waste</b>						
	Total Operating Cost	Total Cost	Total Cost / hh	Average Annual Cost	Average Cost / Tonne	Average Annual Cost / hh
MCS	\$13,192,000	\$14,750,000	\$3,280	\$590,000	\$621	\$131
BFI-Midhurst	\$14,388,000	\$16,020,000	\$3,560	\$641,000	\$674	\$142
Lafleche	\$16,466,000	\$18,100,000	\$4,030	\$730,000	\$762	\$161







**New Site Development and Site Expansion Cost Model**  
**Algonquin Highlands Waste Management Plan**  
**Summary of Cost Model Results**

<b>Scenario: New waste disposal site development (Stanhope)</b>							
<b>Waste</b>							
	Total Capital Cost	Total Operating Cost	Total Cost	Total Cost / hh	Average Annual Cost	Average Cost / Tonne	Average Annual Cost / hh
0 transfer stations	\$1,980,000	\$12,840,000	\$14,820,000	\$3,300	\$600,000	\$584	\$132
1 transfer station (Dorset)	\$2,110,000	\$10,820,000	\$15,460,000	\$3,500	\$620,000	\$609	\$137
2 transfer stations (Dorset and Hawk Lake)	\$2,240,000	\$10,820,000	\$16,530,000	\$3,700	\$670,000	\$651	\$147

<b>Scenario: Existing waste disposal site expansion (Maple Lake)</b>							
<b>Waste</b>							
	Total Capital Cost	Total Operating Cost	Total Cost	Total Cost / hh	Average Annual Cost	Average Cost / Tonne	Average Annual Cost / hh
0 transfer stations	\$1,160,000	\$3,450,000	\$4,600,000	\$1,100	\$190,000	\$181	\$41
1 transfer station (Dorset)	\$1,410,000	\$5,710,000	\$7,110,000	\$1,600	\$290,000	\$280	\$63
2 transfer stations (Dorset and Hawk Lake)	\$1,730,000	\$7,970,000	\$9,690,000	\$2,200	\$390,000	\$382	\$86



**Waste Exportation and Transfer**  
**Algonquin Highlands Waste Management Plan**  
**Traffic Calculations**

2008 Waste tonnage	804
2008 Recycling tonnage	719
Tonnes/load (waste)	10
Tonnes per load (recycling)	5

	Central Waste Disposal Location				
	Hawk Lake	Maple Lake	Oxtongue Lake	Pine Springs	Dorset
Proportion of total waste	0.20	0.45	0.10	0.05	0.20
2008 Waste tonnage	161.0	362.1	80.5	39.7	160.9
2008 Recycling tonnage	143.9	323.7	71.9	35.5	143.8
Waste transferred	643.3	442.2	723.8	764.6	643.4
Recycling transferred	575.1	276.8	647.1	683.5	575.2

Waste Loads per year	64.3	44.2	72.4	76.5	64.3
Recycling Loads per year	115.0	55.4	129.4	136.7	115.0

<b>Total Truck trips to transfer waste per year (approximate)</b>	<b>179</b>	<b>100</b>	<b>202</b>	<b>213</b>	<b>179</b>
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