



LEAF COLLECTION AND MULCHING PROGRAM ALTERNATIVES

March 21, 2022

Current Leaf Collection Operations

- ❑ Leaf collection occurs October – December
- ❑ Three to five passes with leaf loaders (vacuums)

Year	Volume Collected (Cubic Yards)
2019 / 2020	8,925
2020 / 2021	7,427
2021 / 2022	6,916



Leaves are vacuumed into a tandem dump truck

Current Mulch Operations

- ❑ Town grinds a portion of leaves into mulch at Beulah Road site under 2005 conditional use permit
- ❑ Mulch delivered to residents January – March at no charge

Year	Leaf Mulch Orders*	Mulch Loads Delivered
2019 / 2020	280	756
2020 / 2021	246	497
2021 / 2022	323	771

* Multiple loads requested with each order



Deliveries occur using 1-ton dump truck

Current Mulch Operations

- ❑ Remainder of leaves hauled to Loudoun Composting for disposal
- ❑ Current disposal cost approximately \$30 / ton

Year	Unground Leaf Disposal (tons)
2019 / 2020	926
2020 / 2021	865
2021 / 2022	700*

* Hauling to Loudoun Compost ongoing



Disposal occurs using tandem dump truck

Acoustic Monitoring Noise Study

❑ Comparison of 2018 and 2022 sound levels during leaf grinding

Sound Level Type and Location	Range of Predicted Sound Levels (dBA)*		Noise Level Change (dBA)**	Range of Predicted Sound Levels (dBA)
	2018	2022		
Grinder (50 feet away)	77-80	85-89	8-9	Readily Perceptible Increase to Twice as Loud
Barrier wall reduction	16	13	-3	Barely Perceptible Decrease
Broadleaf Drive NE	53-59	59-64	5-6	Readily Perceptible Increase
Holloway Court NE	53-54	57-59	4-5	Readily Perceptible Increase
Glyndon St NE	48-49	48-52	0-3	No Change to Barely Perceptible Increase
Sherwood Drive NE	51-55	48-59	3	Barely Perceptible Increase
Ainstree Court NE	51-53	49-58	3-5	Barely to Readily Perceptible Increase

* Approximately 55 decibels is comparable to a quiet urban daytime.

** Noise level change results from different leaf grinding machines and factors including age, maintenance, and equipment modifications.

Option 1 – Current Operations

❑ Current Operations



❑ Approximate Program Cost (Based on 2020 / 2021 quantities)

Item	Approximate Cost*
Collect leaves and bring to Beulah Road site	\$285,000
Leaf grinding	\$13,000
Mulch delivery	\$97,000
Unground leaf delivery	\$42,000
Unground leaf disposal fee	\$26,000
TOTAL	\$463,000

* Cost includes vehicles/equipment operation, maintenance, staffing, vendors and fees.

Option 2 – Short Haul

- ❑ Short Haul (Eliminates mulch program)



- ❑ Approximate Program Cost (Based on 2020 / 2021 quantities)

Item	Approximate Cost*
Collect leaves and bring to Beulah Road site	\$285,000
Leaf grinding	N/A
Mulch delivery	N/A
Unground leaf delivery	\$64,000
Unground leaf disposal fee	\$39,000
TOTAL	\$388,000

* Cost includes vehicles/equipment operation, maintenance, staffing, vendors and fees.

Option 3 – Long Haul

- ❑ Long Haul (Eliminates mulch program and use of Beulah Road site)



- ❑ Approximate Program Cost (Based on 2020 / 2021 quantities)

Item	Approximate Cost*
Collect leaves and bring to Loudoun Composting	\$289,000
Tandem truck rental	\$61,000
Leaf grinding	N/A
Mulch delivery	N/A
Unground leaf disposal fee	\$39,000
TOTAL	\$389,000

* Cost includes vehicles/equipment operation, maintenance, staffing, vendors and fees.

Summary

Options	Total Program Cost*	Payment to vendors	Comments
Option 1 Current Operations	\$463,000	\$36,000 (leaf grinding and disposal)	<ul style="list-style-type: none"> Continues leaf collection Continues mulch program using Beulah Road site Leaf operations end in March
Option 2 Short Haul	\$388,000	\$39,000 (disposal)	<ul style="list-style-type: none"> Continues leaf collection Eliminates mulch program Continues use of Beulah Road site for consolidating leaves Leaf operations end in March
Option 3 Long Haul	\$389,000	\$100,000 (truck rental and disposal)	<ul style="list-style-type: none"> Continues leaf collection Eliminates mulch program Eliminates use of Beulah Road site for leaf operations opening site for other public use Requires additional truck rental Leaf operations end in January; ~1,500 hours of DPW Labor becomes available for other tasks

* TOTAL PROGRAM COST includes vehicles/equipment operation, maintenance, staffing, payment to vendors and fees. *Reductions do not necessarily result in true budgetary savings because vehicle, equipment, and employee resources will be reallocated to support other operations.*