
Lower Makefield Township Public Works Department

Leaf Collection and Recycling Program
Budget Presentation

Leaf Collection Program

- In the 1960's, Public Works acquired a leaf pickup machine allowing for two rounds of leaf pickup to be completed in four (4) weeks. Present day, two rounds of leaf pickup takes a minimum of 2 ½ months to complete. The goal is to complete the leaf pickup program by the end of December.
 - Since 1992, the Township purchased all leaf machines with state Department of Environmental Protection funds through the Recycling Grant Program.
 - The Township has a fleet of seven (7) leaf pickup machines. The last machine was purchased in 2008 at a cost of \$42,918, of which the Township paid only 10%. The Township was notified that there is no future grant money available, so any future purchases will be without grant money.
 - To keep pace with the increasing work load, Public Works hired the first contractor twelve (12) years ago. A second contractor was added eight (8) years ago and a third contractor two (2) years ago.
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Leaf Collection Program

- The Township presently uses three (3) contractors and four (4) machines to pick-up leaves in addition to Township crews.
 - As Township developments age the Township will continue to collect more leaves.
 - To minimize leaf operation costs, the Township relies on temporary employees to handle most of the ground work. An average of 20-22 temporary employees are needed per day to staff the six (6) leaf pickup machines and these employees must be transported from site to site. The Township presently contracts two (2) different temporary services.
 - For the past 30 years, the Township has used Patterson Farm as its primary disposal site. Since 2005, the Township averages 25,000 cubic yards of leaves per year. If the leaves were disposed of at a private composting facility, it would cost the Township an additional \$30,000 plus disposal fees per year.
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Leaf Collection Program

- In spring 2008, following discussions with the Penn State Agricultural office about leaf application at Patterson Farm, it was recommended that the Township temporarily suspend spreading leaves on the farm. Applying partially decomposing leaves to the farm causes nutrients such as nitrogen to be drawn out of the soil and creates an imbalance that requires fertilizers high in nitrogen to be applied into the soil.
 - The Township will now store the collected leaves at the Samost Tract and selected Farmland Preservation properties which, in the past, have not been utilized for leaf application.
 - In lieu of leaf spreading at Patterson Farm for the next two (2) years, the Township is looking to contract a recycler to haul the majority of the leaves to a composting facility. This cost has not been finalized, and depending on the cubic yards of leaves shipped is estimated at \$30,000 per year in addition to the existing leaf collection program.
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Leaf Collection & Disposal Expenses - looking forward 5 Years

OPERATING EXPENSES	2009	2010	2011	2012	2013	2014
■ 100 - Personal Services	79,910	81,510	83,140	85,635	88,200	90,848
■ 200 - Parts & Supplies	12,500	13,500	14,580	15,750	17,000	18,360
■ 232 – Diesel & Gasoline Fuel	11,000	10,000	10,200	10,400	10,600	10,800
■ 305 – Outside Labor	141,500	155,000	164,300	174,160	181,125	188,370
■ 480 – Contracted Services	30,350	30,350	350	400	400	400
■ Equipment Expenses		155,000	85,000	95,000	75,000	0
■ Leaf Storage Improvements	25,000	25,000	110,000	0	0	0
■ TOTAL EXPENSES	300,260	470,360	467,570	381,345	372,325	308,778
■ LEAF PICKUP FEE REVENUE	360,800	450,995	450,995	543,900	543,900	543,900
■ Capital Reserve				162,555	171,575	235,122
■ 2010 - \$10.00 increase						
■ 2012 - \$10.00 increase						

Budget Detail

- **EQUIPMENT PURCHASES**

- 2010 – Leaf sub-soiler & Backhoe
- 2011 – Tractor for leaf spreader
- 2012 – Leaf Machine & spreader
- 2013 - Leaf Machine

- 2015 – At this time we will need to purchase a new tub grinder at a projected cost of \$850,000. It is unlikely we will have any grant money available.

- **CAPITAL PURCHASES/LEAF STORAGE IMPROVEMENTS**

- 2009 – Improve Leaf storage area
- 2010 – Improve Leaf storage area
- 2011 – Expansion of Leaf storage area

- **LEAF PICKUP FEE**

- 2010 increase \$10.00
 - 2012 increase \$10.00
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Recycling – Current operations

- Recycling activities are the primary concern of Public Works 10-12 weeks every year, consuming at least 5 employees each time; grinder operator, loader, & 3 drivers to haul to storage.
 - Mulch is made from material that is dropped off from residents and contractors. All individuals must stop in the Public Works office to register their loads. This includes name, originating address, phone number and type of material.
 - Acceptable material for the recycle yard is grass clippings, wood (logs or chips), and brush or shrubs with no root ball. Sod, dirt, pressure treated or painted wood is unacceptable. However, many individuals consider the recycle yard a dump depositing unacceptable material and metals. This activity requires additional time to periodically check the yard or loads to insure compliance.
 - The recycling yard is open from 7AM to 3PM Monday through Friday and 8AM to noon the first Saturday of every month for resident drop-off ONLY, no contractors. A staff member is here on the first Saturday of the month to greet and monitor the residents dropping off material.
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Recycling – Current operations

- Raw material is processed first as a single ground product and then transported and stored at the Samost Tract. Twice a year the single ground mulch is reground to provide a better, more suitable product for landscaping use. To make this double ground product, the single ground remains on site for 2-3 months to allow for decomposition before running through the grinder. All mulch not sold is available to Township residents at no charge.
 - The current recycle yard is approximately 3-acres leaving no room for product stockpiling. Therefore, ground mulch must be transported to the Samost Tract . The mulch piles occupy approx. 8 acres of that property. The Samost property, located across the street from the Township complex, is a convenient storage area, minimizes overhead for the department, and provides a central location for residents to obtain their mulch.
 - To meet DEP regulations, a new spring yard waste collection program was instituted with the cooperation of local trash haulers. In 2009, this collection occurred from May 11th to May 22nd and will be done annually. The trash haulers had the option of using our drop-off facility for yard debris collected during this period. There was no charge to the haulers for this option.
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Recycling – Current operations

- To reduce Township labor cost, the Township has sold the single ground mulch product to recycling/landscaping companies. This allows a significant reduction in operating expenses and an added revenue stream. In 2008, the Township received over \$10,000 in the sale of mulch.
 - On April 1, 2009 the Township established a \$100 disposal fee for landscapers/contractors. The implementation of this fee has reduced the volume brought in to the facility while providing the Township with approximately \$1,500 per month to offset operational costs.
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Recycling – Future Operations

Should the Township continue the yard waste recycling to mulch operations, the following need to be considered:

- ❑ Expansion of current yard to include raw material & final product storage. Expansion would be from the current 3 acres to 15 acres. Options are to expand onto the former water company property adjacent to this complex, or relocate entire operation to Patterson Farm.
- ❑ Expanded or new location requires security considerations, i.e. fencing, motion activated cameras & additional personnel to check incoming loads from residents & contractors. Additional personnel would be available for other public works duties as needed. THE FACILITY IS NOT A TRASH DUMP NOR HAZMAT REPOSITORY.
- ❑ Provide bins for product separation which will allow for ease of storage & removal.

ADVANTAGES OF EXPANDED/RELOCATED FACILITY INCLUDE:

- ❑ Reduced operational costs due to centralized delivery & pickup locations, and close storage area. This will eliminate the need to truck the material thus reducing vehicle and labor costs.
 - ❑ Potential use of Samost Tract as a recreational venue eliminates our ability to use this property for a mulch storage site.
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Recycling – Future Options

FUTURE OPTIONS

- Continue program but at a nominal charge to residents to either drop off raw material and/or remove finished products. Additional personnel would be required for either.
 - Continue to take yard waste, but contract with a recycler to operate the facility with a guaranteed amount of double ground mulch being available to Township residents. All residual single ground mulch would go to the operator as part of the contract for his subsequent use.
 - Join the recycle program with leaf program under an umbrella contract with the recycler. The Township provides all of the raw material for recycler to render into useable final products.
 - Township assumes the expense of providing ecologically-sound mulch and collected leaf storage areas.
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Projected Recycling Expenses for 5 years

OPERATION EXPENSES	2009	2010	2011	2012	2013	2014
■ 100 - Operating Expenses	54,674	55,767	56,883	58,590	60,347	62,158
■ 200- Parts & Supplies	12,500	13,125	13,780	14,470	15,194	15,953
■ 232 – Diesel & Gasoline	15,200	14,125	14,407	14,690	14,972	15,255
■ 480 – Miscellaneous	2,000	2,100	2,200	2,315	2,430	2,550
■ Total Expenses	84,374	85,117	87,270	90,065	92,943	95,916
■ Recycle Revenue	11,500	10,500	10,500	11,000	11,000	11,500

Recycling Budget Detail

- **EQUIPMENT/CAPITAL EXPENSES**
 - 2015 – At this time we will need to purchase a new tub grinder at a projected cost of \$850,000. It is unlikely we will have any grant money available.
 - Recycling/disposal Fee – To date we have received \$4,700.
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