

July 19, 1999

Mr. Paul F. Lauer  
Assistant Manager  
Peters Township  
610 East McMurray Road  
McMurray, PA 15317

**Subject:** Evaluating Options for Curbside Collection of Leaf Waste in Peters Township

Dear Paul:

This letter is to provide Peters Township with the results of R.W. Beck's evaluation of options for the curbside collection of leaf waste from Township residents.

The Township decided to explore and compare alternatives to its current program after receiving numerous complaints from residents related to: (1) the recent passage of an ordinance that bans burning in the Township; (2) the high cost of the kraft paper bags that are required in the current collection program; and (3) the excessive number of bags required for large, heavily wooded lots. The goal is to operate a leaf collection program that offers a cost effective, convenient service to residents at a reasonable cost to the Township.

## **EVALUATING OPTIONS FOR CURBSIDE COLLECTION OF LEAF WASTE**

This analysis considers the following:

- The Township currently delivers in the range of 800 to 1,200 cubic yards of leaves (compacted) in kraft paper bags to a composting site located in the Municipality of Upper St. Clair (USC). This estimate is based on: (1) the Township's reporting that five full 30 cubic yard packers are delivered to the USC site on each of the four Saturday collections in the fall, and that the packers return to the Township to collect additional material; and (2) an assumed average weight of 475 pounds per cubic yard for compacted leaves (Source: *Municipal Yard Waste Composting Reference Manual – 1991*). If the estimated range is correct, total leaf generation prior to collection is 190 to 285 tons, or 1,500 to 2,300 cubic yards.
- If the Township collects leaves using a vacuum, the volume after vacuuming (assuming the generation indicated above) would be in the range of 1,075 to 1,625 cubic yards, based on an average of 350 pounds per cubic yard for vacuumed leaves (Source: *Municipal Yard Waste Composting Reference Manual – 1991*). The number of loads to

be delivered to a composting site would depend on the size of the box holding the vacuumed leaves. If the Township uses six cubic yard boxes (the size of the box used with the current vacuum system), the Township would need to make 180 to 270 trips to a composting site to empty the box.

- The cost for transporting leaves from the Township to a composting site is \$1.50 per mile, measured from the center of the Township.

## **CURRENT LEAF COLLECTION PROGRAM**

Peters Township currently provides contracted curbside collection of leaf waste for its approximately 6,000 residences. The Township's waste hauler provides this service on four Saturdays in the fall: usually the last weekend in October, the two Saturdays preceding Thanksgiving, and in early December. Leaves are collected by the Township's contracted hauler in 30-gallon kraft paper bags in five 30 cubic yard packer trucks.

The Township has reported that all five packers are filled then material delivered to a composting site in the municipality of Upper St. Clair (USC), and they all return to collect some additional material. They are not weighed, nor is the exact volume measured. It is estimated that approximately one third of the leaves delivered to the USC site are from Peters Township, and the volume delivered, based on the data cited above, could be between 800 and 1,200 cubic yards. This is consistent with the reported volume of 325 cubic yards of finished compost returned to the Township in 1998; based on this figure, the reduction rate from leaves to finished product would be between 60 and 75 percent. For this report, the average, or 1,000 cubic yards, will be used for estimating purposes.

The cost to operate this program in 1998 was approximately \$12,000, which includes \$4,620 (\$1,155 per collection) for the contractor to provide collection, and \$7,331 for lease and Peters Township's share of the operating cost of the USC site. This does not include any administrative costs incurred by the Township.

## **LEAF COLLECTION OPTIONS**

There are three basic collection options available for the Township's consideration:

- Continuing collection of leaves in bags;
- Implementing a vacuum collection system; and
- Operating a "hybrid" program that offers both options.

With the first two options, there are some areas where use of the other method is required, based on the conditions that exist in a given location. Under each of these options, there are three potential methods for managing the material:

- Continuing delivery of leaves to the USC composting site;

- Delivering leaves to the AgRecycle composting site in North Strabane Township (Washington County); or
- Delivering leaves to a local farmer or farmers for land application (assuming there is interest by local farmers).

These options are described below. No recommendations are provided in this portion of the report.

## **BAG PROGRAM**

There are two types of bags available for use in the Peters Township program:

- 30 gallon kraft paper bags; and
- 30-33 gallon biodegradable plastic bags.

Several companies manufacture kraft bags that would be acceptable for use in the Peters Township program. Leaves in these bags are acceptable at either the USC or AgRecycle sites. The degradable plastic bags are only an option at the AgRecycle site, and only one of these—a bag produced and distributed by BioCorp—is accepted at that site. The BioCorp bags are less expensive than kraft bags and are clear, which helps limit the potential for contamination.

Without exploring the potential for land application with local farmers, it is impossible to know whether or not they would be willing to accept bagged materials. However, because of the way land applied leaves are managed, delivery of bagged leaves would be less desirable than loose leaves.

There are two options for collection of bagged leaves:

- Contracted collection, which is the current option; or
- Municipal collection.

Municipal collection would require substantial investment of time, personnel and funds prior to implementation. To date, contracted collection has been convenient and reasonably priced.

## **VACUUM PROGRAM**

The Township has the option of implementing a vacuum collection program that involves residents raking their leaves to the curb and having them picked up with a leaf vacuum. Leaves collected in this manner would be acceptable at the USC or AgRecycle sites, and should be acceptable to farmers for land application, as long as they are free of any major contaminants.

Under a vacuum collection scenario, the Township would manage collection. There are no known contracted vacuum collection programs in Pennsylvania, presumably because

private sector companies are unlikely to make the required investment in vacuum equipment that can only be used in the fall, and because the contract cost would be too high.

The basic options for vacuum collection are (1) a vacuum unit that empties the leaves into a leaf collection box and (2) a self-contained vacuum unit.

The main considerations for the Township would be the capacity, configuration and cost of vacuum equipment. The choice should be based on the estimated volume of leaves to be collected (1,000 cubic yards), Township/street layout, and ease of use given the unique circumstances that exist within the Township. The drawbacks are: (1) that the Township does not have curbs in most places, and most equipment is designed for the efficient collection of materials in areas with curbs; and (2) there are areas, such as certain cul de sacs and busy main roads, where the vacuums cannot be operated and bags would still be required.

Peters Township already owns a vacuum unit and six cubic yard box that are used for collecting leaves from areas that are not associated with households. The Township would need to purchase additional equipment to manage its approximately 6,000 households if it decides to implement vacuum collection.

## **HYBRID PROGRAM**

The Township could continue to operate a bag collection program as it does now, with an option for residents to subscribe for vacuum collection service for a fee. Under this scenario, the Township's hauler would continue to collect bagged leaves as it does now, and residents who do not wish to bag leaves would have the option of raking them to the street, where the Township would collect them using a vacuum unit.

The Township could advertise availability of this service through its newsletter, local newspapers, local cable access, and local businesses. Township residents desiring to subscribe to this service would call the municipal office to make appropriate arrangements. Charging a separate fee for vacuum collection service would limit use of the service to those who are willing to pay for it, making it possible for the Township to plan appropriately for equipment and personnel needs as a means of controlling its costs and personnel commitments to the program. Those who wish to continue with bags would pay only for the bags as they do now.

The Township's fee **per pickup** for vacuum service should be based on: (1) the estimated hourly cost for equipment operation and personnel; (2) the estimated amount of time it would take to vacuum leaves from a given residence; and (3) a ceiling on the volume (estimated cubic yards) of leaves that could be vacuumed from one residence at any given time. The collection would need to be scheduled so that leaves are picked up in a timely manner to avoid safety problems related to leaves on the roadways and loss due to heavy winds, so the best method is to collect leaves on an appointment basis.

## TOWNSHIP OPTIONS TO CONSIDER

No matter how the Township chooses to manage its leaf collection program, there will be residents who are not completely satisfied. The Township's goal should be to seek a balance that provides the most convenient and cost effective service to residents at a reasonable cost in terms of both money and time for the Township. Some options, along with estimated costs, are presented below.

### BAG PROGRAM OPTIONS

If the Township continues to operate a leaf collection program that requires residents to bag their leaves, it is assumed that the leaves would continue to be collected under contract by the Township's hauler. While land application of leaves was presented as an option in the previous section, this report only considers delivery of leaves to one of the two compost facilities cited that that section. Land application is not a real option unless a local farmer or farmers agree to accept the Township's leaves and manage them as required under DEP's guidelines. Also, without further discussion with local farmers, the cost of this option is unknown.

The costs to the Township under each of the site scenarios is presented in Table 1:

**TABLE 1**  
**COLLECTION/TIPPING COSTS FOR BAG PROGRAM**

Composting Site	Collection Costs	Tipping Fee	Total Cost
Upper St. Clair	\$4,620	\$7,350	\$11,970
AgRecycle	\$4,620*	\$2,700**	\$7,320

\*Collection cost may be somewhat higher due to greater distance to compost site

\*\*This is the ceiling rate for up to 1,300 cubic yards delivered (volume after collection)

It should be noted that the Township receives finished compost from Upper St. Clair based on the portion of material delivered to the site that is attributable to the Township. Peters Township received 325 cubic yards of material in 1998. It is estimated that the Township uses approximately one half of the material, and the rest is given away to residents free of charge. If the Township were required to purchase compost to replace the material returned from USC, the cost would be approximately \$20.50 per cubic yard to purchase finished product (screened to ¾ inch) from AgRecycle. The total cost to purchase 160 cubic yards of compost at that price would be \$3,280. If this amount is factored in to the total cost indicated for AgRecycle, the total cost would be increased from \$7,320 to \$10,600.

The sections below consider the cost to individual residents for the purchase of bags, and note where there would be additional cost to the Township.

### **Maintaining the Current Program**

Peters Township could choose to continue with its current program, which involves residents purchasing leaf collection bags from local retailers. This scenario assumes that the retailers purchase the bags that they sell. Table 2 presents information on the cost of bags to residents under this scenario. Since the bag price is virtually equal for both kraft and degradable plastic bags—approximately \$.27 per bag—there is no breakdown between the two in these projections.

The average cost is deceptive, however, because some residences are not bagging their leaves, do not have many trees, etc., while others are using over 30 to 50 (or more) bags. The cost to a residence that requires 30 bags would be \$16.50.

**TABLE 2**  
**CURRENT PROGRAM – BAGS PURCHASED AND SOLD BY RETAILERS**  
**AVERAGE COST PER HOUSEHOLD\***

Retail Price	Average Cost 20 lbs./Bag (4 bags/HH)	Average Cost 15 lbs./Bag (5.25 bags/HH)
.55	\$2.20	\$2.89

\*Assumes 6,000 households

Because each of the retailers who carry the bags is purchasing them separately from the manufacturer, it is likely that they are not able to get the best price for the bags. Then, as for other products, the retailer uses a standard markup for the product to cover handling costs and make a profit. Unless the Township can negotiate with retailers to accept a lower markup and reduce their price to consumers, the same complaints about the price of bags will continue. In fact, the number of complaints may increase as residents who once burned their leaves are forced to purchase bags.

This option would result in no additional cost to the Township, except for personnel time to negotiate a lower selling price with retailers if the Township chooses.

**Township Subsidizes Bags Under Current Distribution Program**

Another scenario would involve the Township subsidizing the cost of leaf bags sold to residents. Table 3 illustrates the cost to the Township at different levels of subsidy, ranging from 10 percent per bag to the entire difference between the retailers’ purchase price and the price at which the bags are sold to residents. Table 4 then presents the cost to residents under each subsidy level.

**TABLE 3**  
**CURRENT PROGRAM – BAGS PURCHASED AND SOLD BY RETAILERS**  
**ESTIMATED COST TO SUBSIDIZE PURCHASE OF LEAF COLLECTION BAGS\***

Subsidy Level			
10%	25%	50%	100%
\$665.00	\$1,662.50	\$3,325.00	\$6,650.00

\*Assumes 23,750 bags sold, retail price of \$.55/ea.

This scenario could result in significant cost to the Township at the higher subsidy levels and if the number of bags sold increases. The cost could be somewhat reduced if, as suggested in the previous section, the Township can negotiate a lower markup for retailers.



**TABLE 4**  
**CURRENT PROGRAM – BAGS PURCHASED AND SOLD BY RETAILERS**  
**ESTIMATED COST TO RESIDENTS FOR PURCHASE OF SUBSIDIZED LEAF COLLECTION BAGS\***

<b>Subsidy Level</b>			
<b>10%</b>	<b>25%</b>	<b>50%</b>	<b>100%</b>
<b>\$2.09</b>	<b>\$1.92</b>	<b>\$1.64</b>	<b>\$1.08</b>

\*Assumes 4 bags per residence average

**Township Purchases Bags for Distribution through Retailers**

The Township could purchase bags for use by residents and have them distributed through existing retailers. It is expected that the Township would get a better price per bag than individual retailers, and if the Township is able to purchase the bags through the South Hills Area Council of Governments (SHACOG), the price may be even better. Ideally, the bags would be drop-shipped to the appropriate retailers for distribution.

Because the Township is the purchaser, it should have greater leverage on the price charged by retailers for the bags. The Township could negotiate a ceiling level—perhaps a percentage—for the markup retailers can place on the bags. Of course, with the Township purchasing the bags, the cost to retailers for the handling of the bags is minimized, so the markup required to cover the retailers’ costs is substantially less. It is assumed that the Township will recover the actual cost of the bags from retailers.

Assuming the Township is able to negotiate a markup of only 30 percent (compared to approximately 100 percent under the current program), the average cost per household would be \$1.40, or \$.35 per bag.

Because the Township is expected to recover the actual cost of the bags, this option would result only in whatever administrative costs the Township incurs for purchasing the bags and working with retailers to negotiate price and distribute the bags.

**Township Purchases and Distributes Bags**

Another scenario involves the Township purchasing the bags and managing distribution to residents, using Township personnel, working with a local organization for distribution, or both.

If the Township chooses to manage distribution of the bags, there are several options to consider:

- Bags are distributed solely by Township personnel through direct sales at the Township offices and possibly through the Library; bags could be mailed to residents willing to prepurchase and pay for mailing costs.

- Bags are distributed using Township personnel during special distribution times established well in advance and advertised heavily. This could involve one or more evening or weekend times when residents can come to a specific location to purchase bags.
- Bags are distributed using a local service, student, or booster organization as a fundraiser.

Table 5 presents the cost to the Township if it purchases the bags, though it is assumed that the cost will be recovered as residents purchase the bags. Table 6 illustrates the cost per bag and average cost per household to residents.

**TABLE 5**  
**BAGS PURCHASED AND SOLD BY TOWNSHIP**  
**ESTIMATED COST TO PURCHASE OF LEAF COLLECTION BAGS\***

25,000 Bags Purchased	35,000 Bags Purchased
\$6,750	\$9,450

\*Assumes Township will recover the purchase price of the bags as they are sold.

**TABLE 6**  
**BAGS PURCHASED AND SOLD BY TOWNSHIP**  
**ESTIMATED COST TO RESIDENTS FOR PURCHASE OF LEAF COLLECTION BAGS\***

Sold at 10% Markup	Sold at Cost	Sold at 10% Below Cost
\$1.20	\$1.08	\$.96

\*Assumes Township will recover the purchase price of the bags as they are sold.

Under this scenario, the Township will incur costs for preparing bid specifications, advertising, and reviewing bids, unless the bags are purchased through SHACOG. Other costs will include personnel time for distribution, which will probably include overtime for evening and weekend distribution times, and possibly for providing storage space for bags prior to distribution. The Township could choose to set the price per bag at a rate that would cover the costs incurred under this scenario.

**Township Purchases Bags, Distributes through Retailers and Directly**

The Township could use a combination of the previous two options to distribute bags. Bags distributed through retailers could be priced based on a negotiated rate for retailer markup, as described earlier. The Township could choose to distribute bags at cost, or could price bags to cover all or a portion of the administrative costs it incurs for purchase and

distribution of the bags. If the choice is to distribute bags at cost—at a price lower than the cost when purchased through local retailers with their markup—the Township may need to plan for using more of its own resources for distribution. It should be assumed, however, that the cost to the Township for whatever number of bags it distributes through Township channels will be approximately the same whether it distributes all or just a portion of the bags as envisioned in this scenario, because specific times will need to be scheduled and staffing provided for residents to purchase the bags.

The cost per bag and average cost per household are assumed to be the same as illustrated in the earlier sections for purchase from retailers and direct purchase from the Township.

### **Township Offers Vacuum Collection by Subscription**

For residents whose greatest concern is over the inconvenience of bagging leaves rather than the cost, the Township could continue to offer bagged leaf collection as it does now, but offer residents who prefer not to bag their leaves the option of subscribing for vacuum leaf collection service provided by the Township. Under this scenario, residents who choose to subscribe for vacuum leaf collection would rake their leaves to the curb to be collected with vacuum units by Township employees and would pay a fee that covers the cost of this service.

While there are a variety of options that could be used to manage collection under this scenario, the method that would probably present the simplest, most cost-effective option for the Township is as follows:

- The Township notifies residents of the availability of this option through its newsletter and through notices in local newspapers and on local cable access.
- A fee is set for the service. The fee should include personnel costs, vehicle operating costs, and other administrative costs, and should be based on the average time estimated per residence for collection, with a ceiling on the volume of material that can be collected from any given residence at the set rate. Collection of additional material would require a separate collection at the set fee, or the Township could establish a rate that would cover additional volume.
- Residents desiring the subscription vacuum service would contact the Township to arrange for this service. Payment would be required prior to scheduling a collection. Residents could be invoiced and could make payment by check or money order, or the Township could elect to accept credit cards and/or ATM cards for payment. This is not an option at the moment, but having the ability to accept payments this way may make the process less time consuming and more cost effective, even with any costs the Township incurs for making this service available.
- The Township establishes specific days when vacuum collection will be available in order to control its time and costs. Residents who have paid in advance would call to schedule a day when leaves would be vacuumed from in front of their residences.

The Township would need to estimate its own cost for collection based on the specific factors that exist within the Township, and would need to refine this number based on its experience once subscription vacuum collection is implemented. Until the Township gains some of its own experience, it may wish to use the estimated cost for providing this service per household or per hour based on the experience of other municipalities who have been collecting leaves with a vacuum.

For example, the City of Allentown has quoted an hourly cost of \$22.869 for equipment operation, or \$6.452 per cubic yard. Based on these figures, it is estimated that approximately 3.5 cubic yards are collected per hour. Assuming a three-person crew at \$15.81 per hour for a driver and \$14.92 per hour each for two laborers, with a 30 percent factor for benefits (as reported by the Township), the cost for labor would be approximately \$59.50 per hour. This would mean an hourly cost for vacuuming of approximately \$82.40. If it is assumed that the average time for collection at any one residence is one half-hour, the cost to residents should be set at approximately \$40 per collection.

The most important factor in offering this type of subscription service is that the Township ensure that it covers its costs for providing the service. The rate should not be set artificially low, as it may encourage a majority of the Township's residents to switch to vacuum collection at significant cost to the Township, especially if the Township continues to offer and pay its hauler for curbside collection of bagged leaves.

### **VACUUM COLLECTION PROGRAM**

The Township could elect to end its current bag collection program and implement a Township-wide vacuum collection program. Under this program, the Township would use municipally owned leaf vacuums and boxes to collect leaves raked to the curb by residents. The leaf vacuum units can be purchased using Section 902 recycling program grant funds if the decision is made to implement a Township-wide vacuum program. (NOTE: There are some areas where leaves cannot be collected by vacuum, such as cul de sacs where there is insufficient room to maneuver equipment, and main roads where vacuum vehicles would impede traffic. Residents in these areas would still be required to bag their leaves, and the Township would need to arrange for pickup of these bagged leaves.

If the Township decides to implement a Township-wide vacuum program, the cost would need to be absorbed by the Township, much as it is under the current hauler contract for collection of bagged leaves. As noted in the previous section, the Township can only estimate its costs for the time being, and would need to refine its cost estimates based on its experience providing collection over time.

As a means of estimating costs prior to making a decision about this program, some pertinent factors to consider are as follows:

- Operating cost for collection, including personnel and vehicle operating costs.

- Cost for purchase of additional vacuum equipment. Up to 90 percent of this cost is eligible for Section 902 grant funding.
- Tipping fee—It is assumed that the cost will be as indicated in Table 1 of this report.
- Administrative costs such as executing an agreement with the compost facility, managing calls from residents, staff time related to public education, etc.
- Public education—This includes the cost of preparing, producing, and distributing educational materials for residents. Preparation and production are eligible for Section 902 grant funding, and distribution may be used as match for a Section 902 grant.

Using the hourly rates estimated in the previous section, the cost to Peters Township for vacuuming leaves (assuming approximately 1,300 cubic yards delivered) would be around \$37,950 for leaves delivered to USC, and \$33,300 for leaves delivered to AgRecycle. Even in the lower cost scenario, the cost is approximately double the current cost to the Township for contracted collection of bagged leaves, and this option would require significant commitment of personnel and equipment for several weeks in the fall. It would be more cost effective for the Township to subsidize leaf collection bags sold by retailers, or even to purchase and provide leaf bags to residents.

## **OTHER OPTIONS TO CONSIDER**

If the Township prefers to continue with the bagged collection program as it is currently structured, or for residents that are interested in alternatives to raking and/or bagging leaves regardless of the collection method, the Township may wish to consider offering information on collection alternatives to residents. This would involve some preliminary efforts to gather this information and ongoing efforts to disseminate it.

The Township has reported that some residents already have contractors that manage all aspects of their lawn and garden maintenance, including the removal of grass, trimmings and leaves. Some of these contractors may be willing to manage only the removal of leaves in the fall for a fee. The Township could assemble a list of contractors who would offer such a service for any Township residents that are interested. Private operators that should be contacted about their interest in this type of work include lawn and garden maintenance companies, landscapers, nurseries, and other companies that are involved in the design and maintenance of lawns and gardens. There may also be individuals interested in providing such a service for a fee, and these persons could be included on this list as well.

The Township could also determine whether or not service or booster organizations within the Township might have an interest in providing this type of service to residents as a means of raising funds to support the organization, and these organizations could be included on the list. Any organizations that provide this type of service would probably rake and/or bag leaves only, and not remove them.

Of course, the Township should avoid the appearance of endorsing or in any way supporting any of the contractors or individuals included on the list.

## **HOME COMPOSTING**

Promotion of home composting is another option the Township should consider. Many municipalities and counties throughout Pennsylvania have achieved significant reductions in leaves and yard waste that must be managed through composting or disposal by encouraging residents to compost organic materials at home or employ “grasscycling” (leaving grass clippings on the lawn).

Section 902 recycling grants are available to assist in promoting home composting, and fundable items and activities include purchase of home composting bins for distribution to residents, training, and production of educational materials.

The success of a home composting program depends heavily on the Township’s dedication to promoting this activity. Like any form of recycling, the Township would need to engage in a comprehensive and sustained effort to promote home composting. Residents need to be reminded periodically about the importance of participating in this program.

By diverting material from the waste stream through home composting, the Township should expect to achieve some savings in collection costs incurred for fall leaf collections and for any tipping fees at composting facilities. If it can be demonstrated that home composting efforts are resulting in a significant reduction in materials delivered to a landfill or other disposal site, the Township may be able to negotiate a better price in future disposal contracts.

## **PUBLIC EDUCATION**

Regardless of whether the Township elects to continue with its current bag collection program or implement vacuum collection or some hybrid program, public education is and will continue to be an important part of the leaf collection program. Residents need to understand the requirements of the program, and the message must be continually reinforced.

The most important issue in establishing an effective public education program is to set goals in advance. The goals should be as follows:

- To make the public aware of the program.
- To define requirements for users.
- To encourage reduction in material to be processed or disposed through “grasscycling” and home composting.
- To ensure the public understands the value of yard waste composting.

There are a variety of mechanisms that the Township may wish to consider for its public education program. Preparation and printing of these types of materials is eligible for Section 902 recycling program grant funding, but may also present opportunities for partnerships with local businesses that have an interest in recycling. Some ideas for consideration include:

- An insert to the Township newsletter that describes the leaf collection program—preferably something that can be simply removed or cut out and posted in a garage, storage building, on a refrigerator, etc.
- Utility or tax bill inserts with program information. This would require working with the local utilities.
- Public service announcements on local radio stations (not as good because of overlap in coverage area with other municipalities that may have different programs).
- Development of articles for local papers concerning composting issues, including information about use of the site, home composting, grasscycling, and other individual management options.
- A brochure or booklet on home composting that can be made available on request.
- Entering into cooperative efforts with the following to distribute information:
  - Local businesses
  - Schools
  - Garden clubs
  - Libraries
  - Other environmental organizations

The Township should consider partnering with the Cooperative Extension to offer Master Composter training to residents, possibly with a component for distributing home composting bins to participants. Home compost containers are eligible for funding under Section 902 recycling program grants.

Any materials developed for the program should probably be tested for quality purposes. The Township could ask for review by Environmental Quality Board members, members of the League of Women Voters Natural Resources Committee, and/or a focus group of Township residents.

To determine which vehicles have been most successful in reaching Township residents, the Township may wish to consider polling those who call about the program to find out how they learned about the program. This could be done for a set period of time, and the data could then be used to refine the public education program. The Township should also use feedback from residents to refine the materials if it is found that any of the information is difficult to comprehend or misleading.

## CONCLUSIONS

- Peters Township's current leaf collection system is more cost-effective for the Township than any other option.
- The high retail price of leaf collection bags and the large number required for many residences is a point of concern for many residents, and complaints are likely to grow in light of the Township's recent ban on burning.
- The Township is interested in making changes to the collection program to address citizen concerns.
- There are conditions in parts of the Township that make vacuum collection of leaves less attractive than bag collection, including cost, limitations on maneuverability of equipment, traffic, wind, and lack of curbs.
- Delivery of leaves to the AgRecycle composting site in North Strabane Township appears to be a lower cost option than delivery to the Upper St. Clair site.
- Home composting could help to reduce the amount of material that must be managed through fall collections and/or disposal.

## RECOMMENDATIONS

- Peters Township should continue with its current bag collection program, but should:
  - Consider delivering leaves to the AgRecycle site instead of Upper St. Clair; and
  - Consider purchasing the bags and having them drop-shipped to local retailers who agree to a limited markup to keep the price of the bags lower.
- If the cost and number of bags required continues to be an issue for some residents, the Township should consider offering subscription vacuum collection for a fee. The fee should be set based on the actual cost to perform the service.
- The Township should gather and provide information to residents on private operators, local service and other organizations, and individuals that are willing to provide leaf management services (raking, bagging, and/or removal) for a fee.
- The Township should actively promote home composting as a means of reducing yard waste requiring collection/disposal.
- The Township should establish a comprehensive and sustained public education program to ensure that residents understand the leaf collection program requirements.

Savings that can be achieved by changing from the Upper St. Clair composting facility to the AgRecycle facility can help in offsetting additional costs that may be incurred by implementing some of the recommendations that address citizen concerns about the high cost and number of bags required. The bottom line is that all options (even 100 percent



subsidies or free distribution of bags) are more cost effective for the Township than implementing a Township-wide vacuum collection program.

Sincerely,

Sandra L. Strauss  
Environmental Analyst

cc: Kathleen Kilbane, SWANA  
Carl Hursh, DEP  
Debbie Miller, R.W. Beck