

SWANA RECYCLING TECHNICAL ASSISTANCE

FINAL REPORT

**PENNRIDGE AREA COORDINATING COMMITTEE (PACC)
REGIONAL LEAF AND YARD WASTE MANAGEMENT
BUCKS COUNTY**



HARRISBURG, PENNSYLVANIA

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BUCKS COUNTY

EXECUTIVE SUMMARY

The Pennridge Area Coordinating Committee (PACC) includes the following municipalities in Bucks County: **East Rockhill Township; Bedminster Township; Dublin Borough; Hilltown Township; Sellersville Borough; Silverdale Borough; Perkasio Borough; and West Rockhill Township**. The current leaf and yard waste management programs in the majority of the municipalities either offer limited services or do not exist. This study was conducted to evaluate leaf and yard waste management strategies for the PACC region.

A “one size fits all” strategy for leaf waste management for all PACC municipalities is not practical. However, despite clear differences among existing PACC waste and recycling programs, the benefits of cooperative multi-municipal efforts will be worth the planning investment over the longer term for the PACC members and their residents. Diverting leaf and yard waste from landfills or incinerators can save PACC municipalities and residents money through avoided costs for waste disposal (per-ton tip fees). Through processing, finished leaf and yard waste compost products generate revenues through product sales (compost, mulch, soil amendments, etc.). Finished compost products are valuable to the community, and by improving organics management, the PACC can help the environment (e.g. conserve landfill space, reduce system-wide operating costs, enhance soils, accelerate plant growth, reduce fertilizer use, etc.).

In order to be successful, the PACC municipalities must continue the planning effort that has been initiated in this evaluation. There are a variety of options available to the PACC municipalities that can be used to implement an improved system to manage leaf waste that is segregated from the residential waste stream. The region has small and large private compost facilities (**Figure 2**) that can serve as outlets for leaves and certain yard wastes, and it is possible a future compost site developed and operated by the PACC municipalities could be an economical solution for enhancing PACC leaf and yard waste management programs. A combination of curbside leaf and yard waste collection systems, drop-off programs, increased back yard composting and program education will be critical to success. Cooperative municipal efforts will maximize efficiency, improve performance, increase residential service, and lower costs.

Timing is critical as rapidly inflating collection system costs and rising fuel prices can jeopardize PACC municipalities’ ability to implement collection programs (particularly collections that add on to trash fees like leaf waste) and will continue to negatively impact the financial picture of the average homeowner. Without synchronizing at least some of the waste management programs, it is expected that some of the PACC municipal waste, recycling, and leaf waste programs will falter because they become cost-prohibitive.

As summarized, some of the key recommendations derived from this regional leaf and yard waste management evaluation include:

Implement a Baseline Leaf Waste Management Strategy for PACC Municipalities

- Form a **PACC Waste Management Committee** involving all PACC municipalities.
- **Standardize the PACC waste management programs** among the participating municipalities to the extent feasible:
 - Specify the same collection methods.
 - Collect materials at the same level of frequency (to the extent feasible).
 - Specify the collection of the same materials.
 - Update ordinances (waste, recycling, burning, etc.) to reflect new program requirements and use/share the same ordinance language.
 - Distribute similar educational information in the PACC municipalities.
 - All PACC municipalities should implement consistent mandatory trash collection programs via ordinance, regardless of Act 101 mandate status.
- **Execute waste collection contracts** with a qualified service provider through the competitive bidding process for collection services. This could include collection service by a municipality with the infrastructure and equipment to provide the service.
- **Pursue joint and/or multi-municipal bidding** opportunities as feasible, to effectively manage competition and lower costs.
- **Bundle leaf waste and yard waste services with other contracted waste and recycling services** by bidding waste collection, recycling and leaf and yard waste service together.
- **Pay the disposal tipping fees for waste.** Municipalities should pay the tipping fees for waste disposal in order to establish a municipal-level financial incentive.
- **Implement incentive programs** including PAYT waste systems so that leaf and yard waste diversion creates cost avoidance in the form of reduced disposal tip fees.
- **Educate residents** and commercial establishments once every six months about local private outlets for leaf and yard waste drop-off/processing locations. Emphasize backyard composting as a key element to these programs.
- **Execute intermunicipal agreements** among participating municipalities as needed.
- **Continue to provide leaf collection service with municipal crews** as feasible, but closely evaluate outsourcing to a private hauler.
- **Designate a regional/PACC code enforcement officer**, as supported by ordinance and/or intermunicipal agreement.

Implement a Variety of Leaf & Yard Waste Management Options

Keeping in mind the recommended baseline program strategies, some specific PACC Regional Leaf and Yard Waste Management Options include:

- **Multi-Municipal Bidding for Waste, Recycling and Leaf Waste Collection and/or Drop-off Services**

Two or more municipalities can cooperatively bid for residential waste, recycling and leaf waste collection services. This multi-municipal bid could include an option for the hauler to locate and service one or more roll-off containers for collecting leaves and/or specified yard wastes. Drop-off location(s), materials and schedule should be specified in the bid.

- **Intermunicipal Arrangements for Municipal Leaf Waste Collection for Multiple PACC Municipalities**

PACC municipalities may enter agreements with any willing municipality that has leaf collection equipment (e.g. high volume leaf vacuums) and possibly yard waste collection equipment (e.g. waste packer truck) and staff to collect leaves and/or yard wastes. Through execution of intermunicipal arrangements, the bidding process for service is not required.

- **Multi-Municipal Bidding for Leaf and Yard Waste (Only) Collection and/or Drop-Off Services**

Two or more municipalities can cooperatively bid for leaf waste collection services only. This municipal bid package would not include waste or other recycling services. Often, because leaves are already collected by municipal crews, the bid can specify the collection of the remaining “leaf waste” materials as specified by Act 101: “garden residues, shrubbery and tree trimmings, and similar material, but not including grass clippings.” One spring collection and one fall collection is recommended to meet PADEP policy in Act 101 mandated recycling communities. This approach can be used, but is not the preferred recommendation because the cost to bid separately for leaf and yard waste services will be higher than if PACC municipalities can include these services in a waste collection bid package.

- **Bidding for Leaf and Yard Waste (Only) Drop-Off Services**

If one or more of the municipalities wishes to supplement its collection program with a convenient periodic leaf waste drop-off program, this can be accomplished by bidding for roll-off container service. Most feasibly, drop-off leaf waste services would be included as an option in a multi-municipal bidding scenario that would also include curbside collection services. The service proposal would request the hauler to provide an empty 30 to 40 cubic yard roll-off and pick up the roll-off container when filled. The acceptable materials must be noted in the bid specification and could include leaves and/or specified yard wastes. Drop-off location(s), materials and schedule must be specified in the bid.

Since there are private compost facilities in the area that allow residential leaf and yard waste drop-off, this option would not be required for any of the PACC municipalities.

- **Develop and Operate a Regional Public Leaf and Yard Waste Composting Facility**

Some or all of the PACC municipalities could join together to identify a 10-acre site that is developed as a public compost facility. The compost facility could be operated by one or more of the PACC municipalities and used as a place to process leaf and yard waste from PACC municipalities (and even surrounding municipalities). The PACC could distribute quality finished compost products (sold per cubic yard) back to businesses and residents in the region. A regional compost facility should be supported by multi-municipal sharing and some of these concepts include:

- Shared planning effort
- Shared land/land procurement
- Shared Section 902, Grant Application(s) submittals for costs associated with the facility
- Shared staff from participating municipalities to operate the facility
- Shared costs for equipment/processing (possibly split according to the quantity of material requiring processing for each participating municipality)
- Shared educational material development pertaining to the compost facility

- **Implement PAYT to Discourage Curbside Leaf and Yard Waste Disposal**

Nearly six percent of Pennsylvania's disposed waste stream is leaf and yard waste. PACC municipalities should implement PAYT waste collection systems to create a financial disincentive that discourages residents from discarding leaf and yard wastes with regular trash. Until PACC municipal residents have to pay extra for disposing leaves and other yard wastes with their regular trash, they will continue this activity. PACC municipalities should look to Perkasio Borough, which has a successful PAYT program, for guidance and as a model for implementing new PAYT programs.

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REGIONAL LEAF AND YARD WASTE MANAGEMENT
BUCKS COUNTY

1.0 INTRODUCTION

This Report summarizes technical assistance provided by Gannett Fleming, Inc. (GF) on behalf of eight municipalities in the Pennridge Area Coordinating Committee (PACC) in Bucks County, Pennsylvania (see **Figure 1**). Technical assistance and expertise was provided by GF to evaluate the development of a regional leaf and yard waste management program for the following eight PACC municipalities:

East Rockhill Township
Bedminster Township
Dublin Borough
Hilltown Township
Sellersville Borough
Silverdale Borough
Perkasie Borough
West Rockhill Township

The Recycling Technical Assistance program is sponsored by the Pennsylvania Department of Environmental Protection (PADEP) and the Solid Waste Association of North America (SWANA). Recycling Technical assistance applications were submitted by East Rockhill Township and Bedminster Township to support this multi-municipal evaluation. During this regional leaf and yard waste management program evaluation, GF provided the following assistance to the Townships and participating PACC municipalities:

- Reviewed current waste management activities including current leaf waste collection services provided in the PACC municipalities.
- Conducted a presentation to PACC members and County Planners to describe program alternatives, define the regional approach, and to determine which municipalities would actively participate in a regionalized leaf and yard waste management strategy.
- Provided guidance and recommendations for the implementation of a regional leaf and yard waste management program.
- Drafted a residential survey for use in gauging public opinion concerning leaf and yard waste management and other waste management initiatives.
- Completed this project Report to summarize and document findings and recommendations.

2.0 BACKGROUND

The PACC municipalities are located in Bucks County, Pennsylvania (see **Figure 1**). As shown in the demographic information in the table below, the PACC municipalities have a combined population of **42,814 residents** and **10,073 single-family households**.

PACC Demographics

Municipality	2000 Census Population	Single-Family Households
Bedminster	4804	1413
Dublin Borough	2083	297
East Rockhill	5199	1396
Hilltown	12102	3215
Perkasie	8828	1738
Sellersville	4564	673
Silverdale	1001	217
West Rockhill	4233	1124
Totals	42,814	10,073

The following PACC municipalities are “mandated” (based on population) by the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101) to provide curbside recycling and leaf waste collection:

East Rockhill Township
Hilltown Township
Perkasie Borough

The remaining PACC municipalities that are not mandated by Act 101 include:

Bedminster Township
Dublin Borough
Sellersville Borough
Silverdale Borough
West Rockhill Township

In recent years, PADEP has increased its oversight for requiring Act 101 mandated communities to meet Act 101 recycling requirements for leaf waste. As part of these efforts, PADEP has encouraged municipal programs across the state to comply with applicable regulations, with emphasis on curbside collection of leaf waste. “Leaf waste” does not mean leaves only. According to Act 101, leaf waste includes: **leaves, garden residues, shrubbery and tree trimmings, and similar material**, but not including grass clippings. Often, the tree trimmings or brush component of leaf waste is not addressed by municipal waste collection programs. Mandated municipalities that do not comply with their leaf waste recycling requirements can be denied Act 101 Recycling Grants and may be subject to stiffer enforcement (e.g. fines) if non-compliance is continued without any attempt by the municipality to improve its program. Non-mandated municipalities can be part of a regional solution, and residents from both non-mandated and mandated communities can benefit from local recycling opportunities for leaf and yard waste.

3.0 WHY REGIONALIZE LEAF AND YARD WASTE MANAGEMENT

Overall, residents from seven of the eight PACC municipalities do not have a comprehensive leaf and yard waste management program. A few exceptions include small trash collection districts and Townhouse or Condo Associations that offer curbside leaf and yard waste services as part of a waste contract. However, even residents with curbside services have limited convenient options to take brush, shrubbery, and similar items. Without convenient levels of curbside and/or drop-off recycling options available for organics, residents commonly resort to disposing of leaves and yard debris with their trash. Some residents turn to illegal methods of disposal including dumping, disposal in commercial dumpsters, and burning.

The PACC is not alone in trying to address cost-effective and practical leaf and yard waste management that complies with the State's recycling law. Many Pennsylvania municipalities and counties are beginning to evaluate, develop and implement regionalized programs for the management of municipal waste, including leaf and yard waste. This trend is attributed to a number of factors, some of which include:

- Costs are quickly escalating for waste collection; so the additional costs incurred when leaf collection services are added must be considered more carefully than in the past.
 - Ensure economic feasibility and ability to manage costs.
 - Transportation efficiency (and minimized associated nuisances).
- Labor and operational savings.
- PADEP has increased the pressure on Act 101 mandated recycling communities to maintain Act 101 compliance related to proper management of leaf and yard waste, including implementation of curbside and drop-off programs for leaf waste. Non-compliance could lead to denied funding for certain Recycling Grants.
- Increased awareness of recycling has heightened public interest in recycling, including organics.
- Increased public desire to reduce negative impacts to the environment. Composted material accelerates plant growth and is safer than most fertilizers.
- PADEP has earmarked a substantial portion of Act 101, Section 902 grant funds to support the establishment of regional leaf and yard waste management programs.
- Standardized education (improved effectiveness and decreases cost through sharing).
- Convenience to residence (improved overall waste and recycling service).
- Proximity to compost facilities: new, local compost facilities that have been established create economically feasible opportunities to manage this material.

This evaluation describes current waste management systems, local leaf and yard waste processing options, planning approach, and possible regionalized leaf and yard management options.

4.0 EXISTING WASTE SYSTEMS & LEAF AND YARD WASTE PROGRAMS

Before reviewing regional alternatives for leaf and yard waste management, it is important to understand the existing waste management systems that are currently in place in the PACC communities. The household density in each municipality is a key factor in determining the feasibility and cost of curbside collection for any material, wastes or recyclables. Further, the communities that are mandated by Act 101 to recycle may have a different perspective on how the regional program is structured. In many cases, municipalities establish a leaf waste program that simply meets Act 101 requirements, without real consideration of service needs and economics. **Figure 2**, at the end of this Report, shows the Act 101 mandated communities, which are located adjacent to each other in the middle of the PACC region. These mandated municipalities (East Rockhill Township, Perkasio Borough and Hilltown Township) are required to provide curbside recycling services under Act 101, including curbside collection of leaf waste.

The current waste system structures vary from one municipality to the next; these differences can be a sizeable barrier to multi-municipal cooperation. The structure of the existing PACC municipal waste and recycling programs will influence the decision making and implementation process for a regional program. The following **Table 1** presents a waste collection system summary that includes the number of households and the current waste and leaf waste management services and program costs for PACC municipalities. The waste management systems include homeowner contracts, municipal PAYT, municipal contracts and municipal contracts for trash collection districts (with the remaining household in the municipality having homeowner contracts). The residential waste system cost range is dramatic and ranges from just over \$200 annually to over \$425 per year. Residents with homeowner contracts are paying 20-40 percent more than comparable municipal contract programs. Residents in East Rockhill's municipally contracted trash district (180 units) paid \$300 per year for trash and recycling service in 2007; \$100 less per year than many homeowners with private waste subscription.

Because the existing residential trash fees are high in the PACC municipalities, particularly in the non-contract waste systems, there is opportunity for one or more municipalities to change to a more cost-effective contractually-based waste system. The new system could include leaf and yard waste services at a fair price.

The existing leaf and yard waste collection systems are summarized as follows:

- The municipal leaf waste programs are not standardized or consistent with each other.
- Half of the PACC municipalities have no formalized program for curbside or drop-off leaf waste management.
- The available programs primarily focus on the collection of leaves but do not address collection of garden residues, shrubbery and tree trimmings; materials that must also be collected curbside according to PADEP.
- Beyond small-scale bagged collection of leaves at a municipal building, none of the municipalities hosts a supplemental drop-off and composting/processing program for leaves, brush and other yard wastes.

- Local farmers and private compost facilities like Lapp’s Landscape are used as an outlet for leaves that are collected by the municipalities.
- Although private compost facilities may be reasonably close-by, the municipalities don’t actively educate residents about their ability to use these yard waste processors. Education about yard waste drop-off points is required unless the municipality provides monthly curbside collection of leaf waste.
- Most of the PACC municipalities have not pursued arrangements with private yard waste processors to accept truckload deliveries of leaves or other yard wastes.

PACC Municipalities: Waste Collection System Summary Table (2007)

Municipality	Year 2000 US Census (Occupied Households)	Waste Management System	Waste Management System Costs	Leaf and Yard Waste Collection System	Mandated Municipality
Bedminster Township	1,788	Homeowner Contract (some Developments have service as part of association fee)	Not provided	None	No
Dublin Borough	851	Municipal Contract with Hauler (Allied Waste)	Not provided	None (Currently devising a Leaf and Yard Waste Collection Program)	No
East Rockhill Township	1,828	Homeowner Contract & small trash district (Allied)	Trash District (180 units): Trash & Recycling 1/wk: \$26.08/mo. or \$312.96 per year . Yard Waste: 3.14/bag (monthly)	None	Yes
Hilltown Township	4,275	Homeowner Contract	Trash & recycling (Waste Mngmt.) \$106 /qtr. or \$424 per year	Fall Leaf Pick-up w/ vacuum trucks and residents can drop off leaves in plastic bags. All leaves go to 3 local farmers. 1,396 cubic yard reported in 2007. No brush collection.	Yes
Perkasie Borough	3,294	Municipal Collection (PAYT)	15 gallon bags (\$1.35) 30 gallon bags (\$2.35) Annual Budget: \$313,125	Leaves are collected in October and November by Borough vacuum trucks. The leaves are delivered to Lapp's Landscape Products located on 1828 Old Bethlehem Pike in Sellersville, PA 18960. Yard waste is collected once per month. Periodically mulch is produced using a tub grinder funded with PADEP funds and made available to residents.	Yes
Sellersville Borough	1,770	Municipal Contract with Hauler (Allied Waste)	Not provided	None	No
Silverdale Borough	323	Municipal Contract with Hauler (Ches-Mont)	Trash & recycling; \$52 /qtr. or \$206 per year	Contract with J.B. Lawn and Landscape: Two fall collections/vacuum of leaves. Annual budget is approx. \$6,000 for leaf removal. Christmas tree chipping.	No
West Rockhill Township	1,636	Homeowner Contract	Not provided	None	No

Homeowner Contract - Household individually subscribes with one of several local haulers.

Municipal Contract With Hauler - Municipality competitively bids to secure a single contracted waste hauler.

Municipal Collection - Municipality owns equipment and provides municipal staff for collection services.

5.0 LEAF AND YARD WASTE PROCESSING FACILITIES

GF conducted a preliminary evaluation of local and regional compost facilities as part of this study. A listing of private and public compost facilities in the region is located in Appendix A. The evaluation of compost facilities was conducted to determine the viability of compost operations in the region to accept and process leaf and yard waste generated by PACC municipalities. GF researched information about these facilities and contacted many of the facilities to determine their potential to serve as outlets for the PACC. It is important to understand each facility's rate structure (primarily tip fees) and capability for serving as a residential drop-off and/or location for delivery of truckloads of leaves and/or yard waste materials. Compost facilities may accept drop-off customers but not municipal truckloads of leaves and/or brush. The original version of this table was developed by PROP (www.proprecycles.org). GF expanded the information contained in this table with specific information from our evaluation and contacts with these facilities. Some key points about the current PACC region leaf waste and yard waste processing infrastructure:

- There are no publicly operated (or municipal) compost facilities in the PACC region presently with adequate processing capacity or arrangements in place to manage curbside collected leaf and yard waste from a comprehensive regional collection program.
- There is no publicly operated (or municipal) compost facility or any combination of compost facilities in the PACC region at the current time that can be conveniently (and with permission) used by residents (from all PACC municipalities) for drop-off.
- The existing municipal leaf drop-off programs (e.g. Hilltown Township) are drop-off locations only, and are not yard waste processors suitable for expansion into regional compost facilities.
- Generally, GF recommends 10 acres for a multi-municipal compost facility to account for leaf windrow areas, material curing, equipment storage, traffic cueing and flow, parking, material sales, marketing and long-term facility growth. Five (5) acres of the land area can be permitted under Permit-By-Rule, for the active composting area.
- Local Private Facilities Include:
 - **Lapp's Landscape Products** (Sellersville PA) - Accepts residential yard waste drop-off and can offer arrangements for truckload deliveries of leaves (e.g. as done currently for Perkasio Borough).
 - **Warwick Green Grinders** (Jamison PA) – Allows residential brush and clean wood drop-off. This is a grinding operation only that produces mulch for sale. See **Appendix B** for prices and accepted materials.
 - **J.P. Mascaro Compost Facility** (Souderton PA, Montgomery County) – A nearby private compost operation that currently accepts truckloads of leaf waste from contracted municipal customers. Tip fees for leaf and yard waste are around **\$35 per ton** but will vary depending on the details of the service as negotiated with J.P. Mascaro. No residential yard waste drop-off (call for example contract).

- **Jeffery Sparks Excavating Co.** (Doylestown PA) – This is a 2-acre compost operation that accepts leaves only (NO YARD WASTE). Truckloads, including packers, leaf vacuum trucks and triaxles are charged \$15 per load. They are willing to accept leaves from PACC as long as there is processing capacity.

6.0 DEVELOPING A REGIONAL LEAF & YARD WASTE PLANNING STRATEGY

Generally speaking, residents from seven of the eight PACC municipalities do not have a “comprehensive” leaf and yard waste management programs that includes a combination of convenient curbside and drop-off leaf and yard waste recycling options. Inconsistency among the eight PACC municipal waste management systems is both a barrier and a starting point for planning a strategy. Many households mix leaf and yard waste with their trash. Because this material is disposed at a landfill there is a per ton cost in the form of waste disposal/tip fees; which can be avoided or greatly reduced if this material is delivered to a compost facility. Because diverting leaf and yard waste from landfills or incinerators can avoid the cost of disposal, and because finished leaf and yard waste has economic value, plus is beneficial to the environment (e.g. soil enhancement, plant growth, reduction in fertilizers, etc.), strategies should be implemented within the PACC region to improve the management of this material.

It should be understood by the PACC that “comprehensive” yard waste services as recommended by GF does not necessarily place a heavy emphasis on the additional recovery of residential yard waste material at the curbside in every municipality. Backyard composting is a cost effective way to manage yard debris, and educating and encouraging residents in this activity can be a large part of a “comprehensive” program. Avoiding excessive collection costs, particularly in rural areas or in suburbs, should be factored in to the regional strategy. In an area where average lot sizes exceed ¼ acre, the land area can usually accommodate the composting of leaves, yard wastes and other organics. Realistic, implementable and cost effective collection options were considered in this evaluation.

The following sections review some of the initial planning steps taken to identify a planning direction for the PACC.

6.1 Regional Leaf Waste Management Meeting With the PACC

In order to review possible regional leaf waste strategies and the planning direction for the PACC municipalities, GF met with and presented information to some of the PACC members on November 29th, 2007. The Meeting Memo, PowerPoint presentation, and Meeting Summary are included in **Appendix C**. With recognition that not all of the PACC municipalities would be willing to participate, GF asked participants to indicate if they were “**in or out**” with regards to a serious interest in evaluating and implementing a regionalized leaf waste management strategy. Based on responses provided over the course of this evaluation, the following PACC municipalities that documented they were willing to participate (at some level) with other PACC municipalities in a regional leaf and yard waste management approach, included Silverdale Borough and East Rockhill Township.

Some municipalities have not confirmed their position and at least one rural municipality indicated it was not interested at this time to commit to a shared regional effort. GF notes that some PACC municipalities already offer leaf waste management services to residents and this could detract from their willingness to prioritize a regional planning effort.

Only the PACC members and elected officials can make the final decisions, confirm who will participate and decide whether or not changes to the entire waste collection system, including contracting for waste, recycling, and yard waste collection, are implemented. GF reviewed the two planning approaches bulleted below and requested feedback from all PACC municipalities through a PACC Questionnaire and Checklist (**Appendix D**). Based on responses from the PACC questionnaire, most PACC municipalities believed it was in their best interest to cooperate at some level to implement an improved leaf waste management system.

- Work towards meeting leaf waste collection and processing needs without considering changes to or integration with other waste management (i.e. curbside trash collection) and recycling services.
- Evaluate and consider integrating the regional leaf waste management program into a comprehensive waste management system where cooperative multi-municipal bidding may be used to provide some level of curbside and/or drop-off services for leaf waste (as defined by Act 101).

GF strongly encourages PACC members to view the waste management and recycling systems as an integrated system in order to improve the overall efficiency, performance and sustainability of these programs.

6.2 Residential Waste Management and Recycling Survey

GF prepared a draft residential waste management and recycling survey and provided assistance in the distribution of the survey (**Appendix E**). The surveys will document the opinions of residents in the PACC area regarding waste collection, recycling, leaf and yard waste management and other similar issues. Although it was beyond the scope of this evaluation to review and analyze the survey results, this information will be valuable to the PACC for fine-tuning a leaf and yard waste management strategies as well as for insights on many other waste management issues.

6.3 Understanding Regional Leaf Waste Management Benefits/Opportunities

The PACC municipalities have very different waste management structures that can inhibit the ability to efficiently develop and implement a multi-municipal leaf waste management strategy. Acknowledging that there are barriers, GF believes the benefits of cooperative/regionalized programs can outweigh most barriers. Benefits of the cooperative approach in evaluating and pursuing these alternatives include:

- Opportunity to manage escalating costs.

- Opportunity to cost effectively provide a higher level of service (e.g. more materials and/or, curbside services where feasible, drop-off opportunities).
- Planned approach to meet Act 101 and PADEP requirements for leaf waste.
- Development of standardized programs will facilitate long-term implementation.
- Shared use of resources (e.g. equipment, staff and educational materials) .
- Project grant funding priority by PADEP increases for regional programs.
- Improved options and resources for identifying and implementing a future compost site (e.g. shared funding, management and staffing).

With minimal shared regional efforts currently in place for leaf waste management and other waste management services, the PACC has many opportunities to implement regionalization. The homeowner contract waste system currently in place in four (4) of the eight municipalities can pose a hurdle in the cost effective management of waste and recyclables as well as increase the difficulty in formalizing multi-municipal efforts. This is in part because homeowner contracts or “open” waste collection systems: 1) have inherently high residential fees, so adding service will make high trash service fees even higher, which discourages public participation; and 2) are difficult to manage and enforce because the multiple hauling companies have overlapping service routes and a wide variety of services and fees that complicates the collection program and ability to coordinate collection efforts. Although these “open” systems do pose certain barriers, the high existing residential cost creates an opportunity to save residents a considerable amount of money. Through competitive bidding, a municipality with an open system can add or enhance leaf waste collection service as part of a comprehensive waste management strategy while lowering the total cost paid by the resident for waste collection service.

7.0 CONCLUSIONS

A “one size fits all” strategy for leaf waste management for all PACC municipalities is not practical. However, despite clear differences among existing PACC waste and recycling programs, the benefits of cooperative multi-municipal efforts will be well worth the planning investment over the longer term for the PACC members and their residents. Diverting leaf and yard waste from landfills or incinerators can create an avoided cost for waste disposal (per ton tip fees). Through processing, finished leaf and yard waste compost products generate revenues through product sales (compost, mulch, soil amendments, etc.). Finished compost products are valuable to the community and organics management is beneficial to the environment (e.g. enhances soil, accelerates plant growth, conserves landfill space, reduces in fertilizers, etc.). The PACC municipalities should work together to develop strategies to implement economically feasible leaf and yard waste management programs within the PACC region to improve the management of this valuable material.

There are a variety of options available to the PACC municipalities that can be used to implement an improved system to manage leaf waste that is segregated from the residential waste stream. A combination of curbside leaf and yard waste collection systems, drop-off programs, increased back yard composting and program education will be critical to success. Several PACC municipalities collect leaves, and fewer have spring and fall yard waste collections. The PACC’s opportunities for efficient leaf and yard waste management are

negatively impacted because there is limited effort among the PACC municipalities to act cooperatively and to synchronize and standardize their waste collection systems. Cooperative efforts will maximize efficiency, improve performance, increase residential service, and lowers costs. In order to improve the overall performance and sustainability of these programs, the PACC municipalities will need to work together on a variety of waste management issues and begin a new regionalized planning mindset.

This Report is only an initial step in a planning process, and work must continue by the PACC members. Although the initial impetus of this study was regional or multi-municipal leaf waste management, GF advises that cost effective and sustainable leaf waste management can be achieved by integrating and bundling leaf collection service with other waste and recycling services. This can be done either through competitive bidding or as provided by a municipal public works department.

After leaf and yard waste is collected, it should be delivered to one or more PADEP-approved facilities. There are both small and large private compost facilities in the region (**Figure 2**) that can serve as outlets for leaves and certain yard wastes. Private processors, like Lapp's Landscaping, are currently used by some of the PACC municipalities to compost leaves collected curbside by municipal crews. Local farms are also used to compost leaves. Although there are no public compost facilities operated by any of the PACC municipalities, there is processing capacity for organics from the private sector. This capacity comes at a cost in the form of a tipping fee at the processor's gate. The tip fees for yard wastes in the region range widely per ton or per truckload depending on the facility, and the list of accepted materials varies by location. For the most part, the PACC municipalities do not have formalized disposal arrangements with yard waste facilities. Over half the PACC municipalities do not have a formalized leaf waste collection system, although Dublin Borough has plans to implement a program. Although there is an apparent void for a publicly operated compost facility that could serve the PACC and improve the economics for disposal/processing, the existing collection and education programs should be refined and the level of PACC cooperation be confirmed prior to serious pursuit of developing a regional public compost operation.

Timing is critical, as rapidly inflating collection system costs and rising fuel prices can jeopardize the PACC municipality's ability to implement collection programs (particularly collections that add on to trash fees like leaf waste) and will continue to negatively impact the financial picture of the average resident. Without synchronizing at least some of the waste management programs, it is expected that some of the PACC municipal waste, recycling, and leaf waste programs will falter. In the next few years, as costs become a larger barrier, programs will be forced to limit the level of service options and/or will result in unprecedented price increases experienced by the municipalities and residential trash bills. The PACC municipalities that already competitively bid for waste collection services and Perkasio Borough which has a successful PAYT program, will see less of an impact to their programs, but should reevaluate their programs to maximize the benefits of cooperative arrangements with their municipal neighbors.

8.0 RECOMMENDATIONS

Additional planning is required by the PACC. It is recommended the PACC municipalities continue to hold regular planning meetings regarding leaf waste management with an emphasis on ongoing improvements to a comprehensive waste management system where resources are shared and multi-municipal benefits are maximized. Initially, the PACC municipalities should confirm what municipalities will or will not participate in a regionalized effort and then define the common goals for these programs.

8.1 Develop and Implement a Baseline Leaf Waste Management Strategy

Based on GF's review of the PACC municipalities' existing waste management programs, and understanding of multi-municipal waste planning initiatives, GF recommends a baseline for a cooperative leaf and yard waste management strategy in the bulleted list below. The focus of this baseline is to structure PACC municipal programs (those willing to participate) so they are efficient, enforceable, and cost effective. Municipal demographics, existing waste management systems, and many other factors will affect implementation differently in each municipality; so this is a planning guideline only:

- Form a **Waste Management Committee** involving all PACC municipalities and meet regularly to address regional leaf waste and waste management issues.
- **Standardize the waste management programs** among the participating municipalities to the extent feasible:
 - Specify the same collection methods (e.g. specify the collection of leaves and yard wastes in hard plastic containers as the PACC standard).
 - Collect materials at the same level of frequency (to the extent feasible); meeting or exceeding Act 101 leaf waste collection frequency requirements in mandated municipalities, but consider implementing the same level of collection service in non-mandated communities if economically feasible.
 - Specify the collection of the same materials (e.g. limbs 6" diameter or less, not to exceed 36" in length).
 - Update ordinances (waste, recycling, burning, etc.) to reflect new program requirements and use/share the same ordinance language in relevant sections for participating municipalities.
 - Distribute similar educational information in the PACC municipalities (share this effort and cost). For example, the PACC members should develop leaf and yard waste brochures that can be used in each municipality that review back yard composting, local drop-off locations, tips on curbside collection, etc.
 - All PACC municipalities should implement consistent mandatory trash collection programs via ordinance, regardless of Act 101 mandate status.
- **Execute contracts** with a qualified service provider through the competitive bidding process for collection services. This could include collection service by a municipality with the infrastructure and equipment to provide the service.

- **Pursue joint and/or multi-municipal bidding** opportunities as feasible to effectively manage competition and lower costs by offering more units (a larger contract) to the prospective bidders.
- **Bundle leaf waste and yard waste services with other contracted waste and recycling services** by bidding waste collection, recycling and leaf and yard waste service together.
- **Pay the disposal tipping fees for waste.** Municipalities should pay the tipping fees for waste disposal in order to establish a municipal-level financial incentive to save money through increased recycling efforts.
- **Implement incentive programs** including PAYT waste systems so that leaf and yard waste diversion creates cost avoidance in the form of reduced disposal tip fees.
- **Educate residents** and commercial establishments once every 6 months about local private outlets for leaf and yard waste drop-off/processing locations. Emphasize backyard composting as a key element to these programs.
- **Execute intermunicipal agreements** among participating municipalities as needed.
- **Continue to provide leaf collection service with municipal crews** as feasible, but closely evaluate outsourcing to a private hauler, regularly analyze costs, and consider procurement of Act 101, Section 902 grant-eligible one-man high capacity leaf vacuum vehicles (that might service more than one municipality) and yard waste containers as feasible.
- **Designate a regional/PACC code enforcement officer**, as supported by ordinance and/or intermunicipal agreement, with the authority to enforce trash and recycling in the identified participating PACC municipalities. Sharing the cost of program enforcement among municipalities support program consistency and can reduce the costs for individual municipal programs.

Working closely together to standardize the PACC's waste management systems is a fundamental strategy that can benefit the PACC municipalities and residents well into the future. This strategy does not mean the municipalities sacrifice their ability to customize certain aspects of their programs to meet specific needs, but it does require a focused effort on implementing comprehensive programs with similar services and requirements.

8.2 Implement a Variety of Leaf & Yard Waste Management Options

The dynamics of Pennsylvania municipal government and politics creates challenges to implementing a single planning strategy, particularly when multiple municipalities are involved. Additionally, collecting and processing leaf and yard waste is often more economically feasible when a variety of options are considered and a variety of processors are used. In areas where curbside collection programs are cost prohibitive, supplemental drop-off locations for leaf and yard waste should be evaluated and implemented as an economically feasible alternative to curbside service. Reducing the distance traveled from the collection point to the processor should be a guiding principle to minimize costs.

Section 8.1 recommended broad planning strategies that emphasize the importance of a cooperative PACC effort, waste management program standardization, and bundling leaf and yard waste collection with other waste and recycling services. The following sections briefly describe several leaf and yard waste management options. It is recommended the PACC review these options and work closely together to implement a combination of these options in a way that enhances existing PACC programs, adds new leaf waste collection services where desired, and increases the opportunities for residents to cost effectively participate in organics recycling. Some of these options may be feasible for individual PACC municipalities (e.g. bidding for waste, recycling and leaf waste collection services), but cooperation among PACC members is encouraged.

Keeping in mind the recommended baseline program strategies, some specific PACC Regional Leaf and Yard Waste Management Options include:

8.2.1 Multi-Municipal Bidding for Waste, Recycling and Leaf Waste Collection and/or Drop-off Services

Two or more municipalities can cooperatively bid for residential waste, recycling and leaf waste collection services. This multi-municipal bid could include an option for the hauler to locate and service one or more roll-off containers for collection leaves and/or specified yard wastes. Drop-off location(s), materials and schedule must be specified in the bid.

It is recommended that Bedminster Township, East Rockhill Township, Hilltown Township, and West Rockhill Township implement municipal-wide contract waste management systems in order to improve program economics, program performance and the cost-effective addition of services including curbside leaf and/or spring and fall yard waste collections. Without contractually-based waste programs for these municipalities, it will be difficult to standardize the programs so they can work efficiently and in conjunction with other programs. These four municipalities could bid together, participate with one or more other municipalities in a future bid, or could each bid for waste and recycling services independently. Regardless of the approach, it is recommended these programs enter into a contract with a hauler and implement programs with similar requirements that are reinforced with consistent ordinance language.

Silverdale Borough has a contract with Ches-Mont for waste collection and a separate contract with J.B. Lawn and Landscape for two fall leaf waste collections per year. To lower the cost for this service, it is recommended the Borough include leaf waste collection services in the next bid for waste collection services and also consider other shared bidding arrangements with other PACC municipalities.

8.2.2 Intermunicipal Arrangements for Municipal Leaf Waste Collection for Multiple PACC Municipalities

PACC municipalities may enter agreements with any willing municipality that has leaf collection equipment (e.g. high volume leaf vacuums) and possibly yard waste collection equipment (e.g. waste packer truck) and staff to collect leaves and/or yard wastes. Through execution of intermunicipal arrangements, the bidding process for service is not required.

8.2.3 Multi-Municipal Bidding for Leaf and Yard Waste (Only) Collection and/or Drop-Off Services

Two or more municipalities can cooperatively bid for leaf waste collection services only. This municipal bid package would not include waste or other recycling services. Often, because leaves are already collected by municipal crews, the bid can specify the collection of the remaining “leaf waste” materials as specified by Act 101: “garden residues, shrubbery and tree trimmings, and similar material, but not including grass clippings.” One spring collection and one fall collection is recommended to meet PADEP policy in Act 101 mandated recycling communities. Grass can be collected if local processors accept grass. This approach can be used but is not the preferred recommendation because the cost to bid separately for leaf and yard waste services will be higher than if PACC municipalities can include these services in a waste collection bid package.

GF notes that some municipalities have added municipal curbside leaf waste collection services for leaves, garden residues, shrubbery and tree trimmings, and in some cases grass by contacting a hauler directly and requesting the service for the fall and then again in the spring to meet Act 101 requirements. This cost ranges from \$1.00 -\$2.00 per household. GF recommends that a solicitor is contacted to verify if the municipal bidding process is required for the requested service.

Any bid can include an option for a hauler to locate and service one or more roll-off containers for collection leaves and/or specified yard wastes. Drop-off location(s), materials and schedule must be specified in the bid.

8.2.4 Bidding for Leaf and Yard Waste (Only) Drop-Off Services

If one or more of the municipalities wishes to supplement its collection program with a convenient periodic leaf waste drop-off program, this can be accomplished by bidding for roll-off container service. Most feasibly, drop-off leaf waste services would be included as an option in a multi-municipal bidding scenario that would also include curbside collection services. The service proposal would request the hauler to provide an empty 30 to 40 cubic yard roll-off and pick up the roll-off container when filled. The acceptable materials must be noted in the bid specification and could include leaves and/or specified yard wastes. Drop-off location(s), materials and schedule must be specified in the bid.

Since there are private compost facilities in the area that allow residential leaf and yard waste drop-off, this option would not be required for any of the PACC municipalities. However, Act 101 mandated municipalities that do not collect leaf waste every month, are required to educate the residents of a supplemental location to drop-off leaf and yard wastes at least once every six months.

8.2.5 Develop and Operate a Regional Public Leaf and Yard Waste Composting Facility

Some or all of the PACC municipalities could join together to identify a 10-acre site that is developed as a public compost facility. The compost facility could be operated by one or more of the PACC municipalities and used as a place to process leaf and yard waste from PACC municipalities (and even surrounding municipalities). The PACC could distribute quality finished compost products (sold per cubic yard) back to businesses and residents in the region. A regional compost facility should be supported by multi-municipal sharing and some of these concepts include:

- Shared planning effort
- Shared land/land procurement
- Shared Section 902, Grant Application(s) submittals for costs associated with the facility
 - Shared staff from participating municipalities to operate the facility
 - Shared costs for equipment/processing (possibly split according to the quantity of material requiring processing for each participating municipality)
 - Shared educational material development pertaining to the compost facility

The initial equipment recommended at a minimum for this facility would include:

- 1 yard waste grinder (\$200,000 - \$350,000)
- 1-2 front-end loaders (\$100,000 – \$140,000).

Additional equipment to accelerate processing and improve the quality and sale value of the finished compost products include:

- Windrow turners (\$100,000 - \$450,000)
- Screening Equipment - trommel screen (\$180,000 - \$350,000)

A municipally-operated regional compost facility can be an economically feasible piece of a regionalized leaf and yard waste management program especially considering the tip fees that are currently being paid for waste disposal and to private yard waste processors in the area.

Grant funding to support the implementation of a compost facility is not guaranteed. If the PACC pursues the development of a regional compost facility it will require financial planning to ensure that tip fees and product revenues can offset the operational costs at a level that allows the facility to be economically sustainable. The PACC should progress with cooperative waste management efforts and standardize some of the waste management program requirements among PACC participants as part of this option. When a municipal compost facility is developed, the PACC would be able to discount its municipal participants for leaf and yard waste deliveries. The facility should operate as a business. It is recommended the PACC charge tip fees comparable to other private composters in the region so the private facilities are able to compete with the regional facility. Commercial vendors (e.g. local landscapers) should also be charged a fee to help offset operating revenues, but would have the advantage of a local facility to take material and reduce fuel consumption costs and vehicle down time.

The PACC municipalities with municipal-wide waste collection contracts could also direct material (e.g. spring yard waste collections and leaves) as part of their contract requirements.

The location of a centrally located compost facility could reduce costs associated with hauling PACC municipal yard wastes, which will even lower costs for contracted haulers that provide yard waste collection service.

8.2.6 Implement PAYT to Discourage Curbside Leaf and Yard Waste Disposal

Nearly six percent of Pennsylvania's disposed waste stream is leaf and yard waste. PACC municipalities should implement PAYT waste collection systems to create a financial disincentive that discourages residents from discarding leaf and yard wastes with regular trash. Until PACC municipal residents have to pay extra for disposing leaves and other yard wastes with their regular trash they will continue this activity.

It is recommended all PACC municipalities implement some type of PAYT program and look to Perkasio Borough, which has a successful PAYT program, for guidance and as a model for implementing new PAYT programs. Perkasio Borough's waste management program diverts more waste to recycling per household than any other PACC municipality. It is recommended the new PAYT programs are implemented via a municipally contracted waste program with a private hauler.

FIGURE 1

Project Location Map

FIGURE 1
PROJECT LOCATION MAP

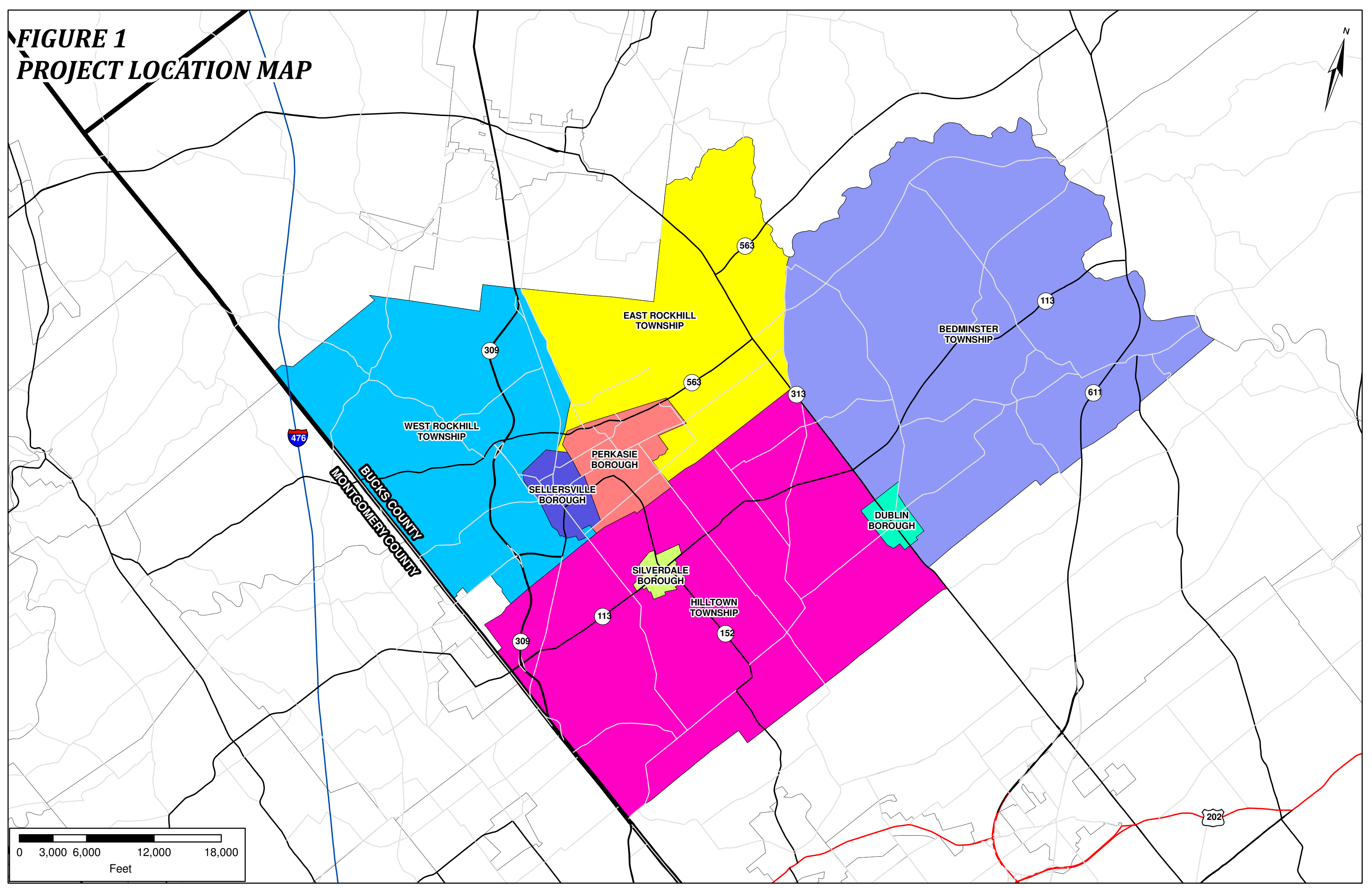
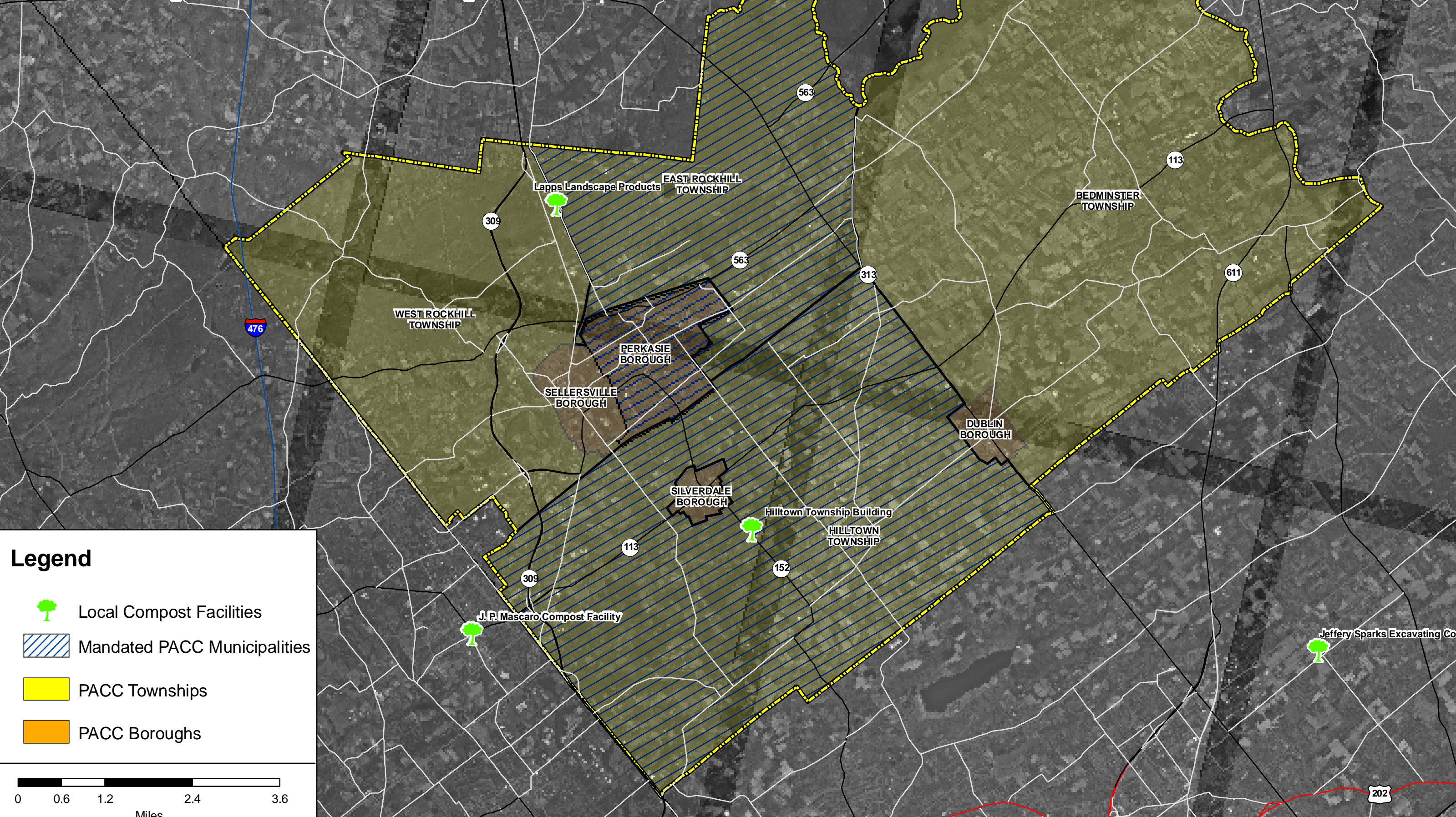






FIGURE 2

Map of PACC Municipalities and Act 101 Mandated Communities

FIGURE 2
REGIONAL LEAF WASTE MANAGEMENT STUDY
"PACC Municipalities and Local Compost Facilities"



Legend

-  Local Compost Facilities
-  Mandated PACC Municipalities
-  PACC Townships
-  PACC Boroughs

0 0.6 1.2 2.4 3.6
Miles

**APPENDIX A –
Listing of Private and Public Composting Facilities**

BUCKS COUNTY COMPOSTING DIRECTORY

Private:

<p>Lapp's Landscape 1828 Old Bethlehem Pike Sellersville, PA 18960</p> <p>Contact: Joann Lapp Phone: (215)-257-9040</p> <p>Hours: M - F 7:00am - 5:00pm</p>	<p>Products: Mulch and other organic products Feedstocks: Leaves, brush, grass, branches and other yard debris</p>
<p>Jeffrey Sparks Excavating 4493 Lois Lane East Doylestown, PA 18901</p> <p>Contact: Sam Smith Phone: (215-345-4481)</p>	<p>Products: Compost Feedstocks: Leaves</p>
<p>Tullytown Resource Recovery Facility Waste Management 1121 Bordentown Road Morrisville, PA 19067</p> <p>Contact: Chuck Raudenbush Phone: (215-736-9400) Fax: (215-736-9427)</p>	<p>Products: Compost (1,000 - 5,000 cub. yrds per year) Mulch & other organic products (1,000 - 5,000 cub. yrds per year) Feedstocks: Leaves, grass, and brush</p>
<p>Warwick Green Grinders Inc. 2616 Rushland Rd. Jamison, PA 18929</p> <p>Contact: Dave Ritter Phone: (215)-598-3058</p>	<p>Products: Triple-ground and Organic Dyed Mulch Feedstocks: Leaves, branches & clean stumps</p>

Municipalities:

<p>Lower Makefield Township 1100 Edgewood Road Yardley, PA 19067</p> <p>Contact: Jim Coyne Phone: (215)-493-4142</p> <p>URL: http://www.lmt.org/pubworks.htm For more info email donnar@lmt.org</p>	<p>Products: Mulch Feedstocks: Yardwaste and leaves</p> <p>Mulch is available for free to residents, and for a fee to landscapers</p> <p>Hours: Monday thru Friday 7:00 AM to 11:45 AM and 12:45PM to 3:00 PM</p>
<p>Quakertown Borough 15-35 North Second St Quakertown, PA 18951</p> <p>Contact: Joe Murgia Phone: (215-536-5005)</p>	<p>Products: Mulch Feedstocks: Leaves, brush, and branches</p>

Source: www.proprecycles.org

**APPENDIX B –
Warwick Grinders Pricing Sheet**

WARWICK GREEN GRINDERS

Located at K & D Growers
2616 Rushland Road
Jamison, PA 18929
215-598-3058

MULCH

\$24.00 yd – Triple Ground Mulch

\$27.00 yd – Dyed Triple Ground Hard Wood Mulch in **Black, Brown, or Red**

Delivery fees may apply.

Debris Drop Off

Brush

Pick Up Truck - \$10.00

Pick Up with Side Boards - \$15.00

12 ft Stake Body - \$20.00

14 ft Stake Body - \$20.00

16 ft Stake Body - \$25.00

Tri Axel - \$75.00

Wood – cut to fire wood size

Pick Up Truck - \$20.00

Small Dump Truck - \$25.00

12 ft Stake Body - \$35.00

14 ft Stake Body - \$40.00

16 ft Stake Body - \$45.00

Large Enclosed Truck - \$50.00

Wood over 4 ft in length and wide in diameter-charged accordingly.

Crane truck and tractor trailer accessible.

Wood Chips - FREE

We do **NOT** accept: **TRASH**, stumps, grass clippings, pressure treated wood, railroad ties, telephone poles, cinder blocks, rock, metals of any kind, tires, concrete or any other material that can not be made into mulch. **ORGANIC MATERIAL ONLY!**

All violators subject to a \$300 LITTERING FINE and loss of privileges to yard.

APPENDIX C –

PowerPoint Presentation and Meeting Summary

Pennridge Area Coordinating Committee Bucks County

Recycling Technical Assistance Regional Leaf Waste Management



Gannett Fleming

October 2007

Pennsylvania Recycling Technical Assistance Program

Technical assistance with regards to achieving higher recycling rates.

Partnership

- PA Department of Environmental Protection
- Governor's Center for Local Gov't Services
- Pennsylvania State Association of Township Supervisors (PSATS)
- Solid Waste Association of North America (SWANA)

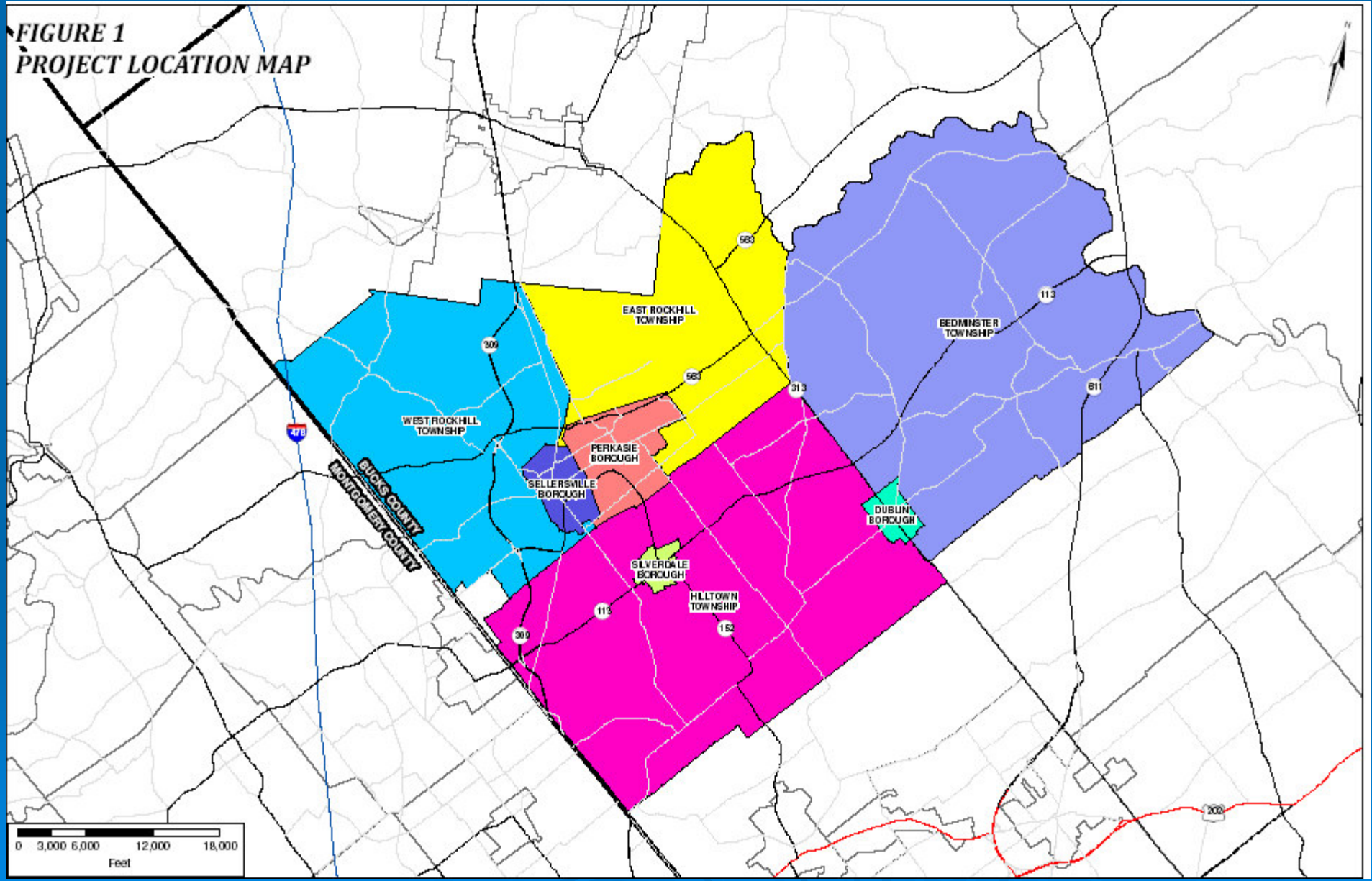
Scope of Work

To evaluate alternatives and provide guidance and recommendations for establishing a **regional leaf waste management program** for the PACC communities.

“leaf waste”

- By regulatory definition, “leaf waste” includes: **leaves, garden residues, shrubbery and tree trimmings**, and **similar material**, but **not** including **grass clippings**.

FIGURE 1
PROJECT LOCATION MAP



Why “It” Makes Sense (in a PLANNED system)

- Economics/ Economic Efficiency
- Education or Promotion of the Program
- Convenience to Residents
- Transportation Efficiencies
- Labor and Labor Cost Savings
- Reduced Pollution/Energy & Natural Resource Savings

Why It Makes Sense...cont.

- Planned Regional Growth/ Development of Waste/Recycling Programs – Long-Term Outlook
- Within the context of a planned regional waste management system, and with consideration of charging tip fees (organics) and sale of finished compost, offers a lower cost per ton for collection/processing than waste.
- PACC - implementation
- Backyard composting is always encouraged.

Why It Doesn't Make Sense?

AHHH But it DOES!

Then why does it not happen?

VOTES



Developing a Regional Leaf Waste Management System

The Biggest Question

Will the PACC pursue a regionalized waste management system or;
a regional leaf waste management/composting program?

Developing a Regional Leaf Waste Management System

The next biggest question

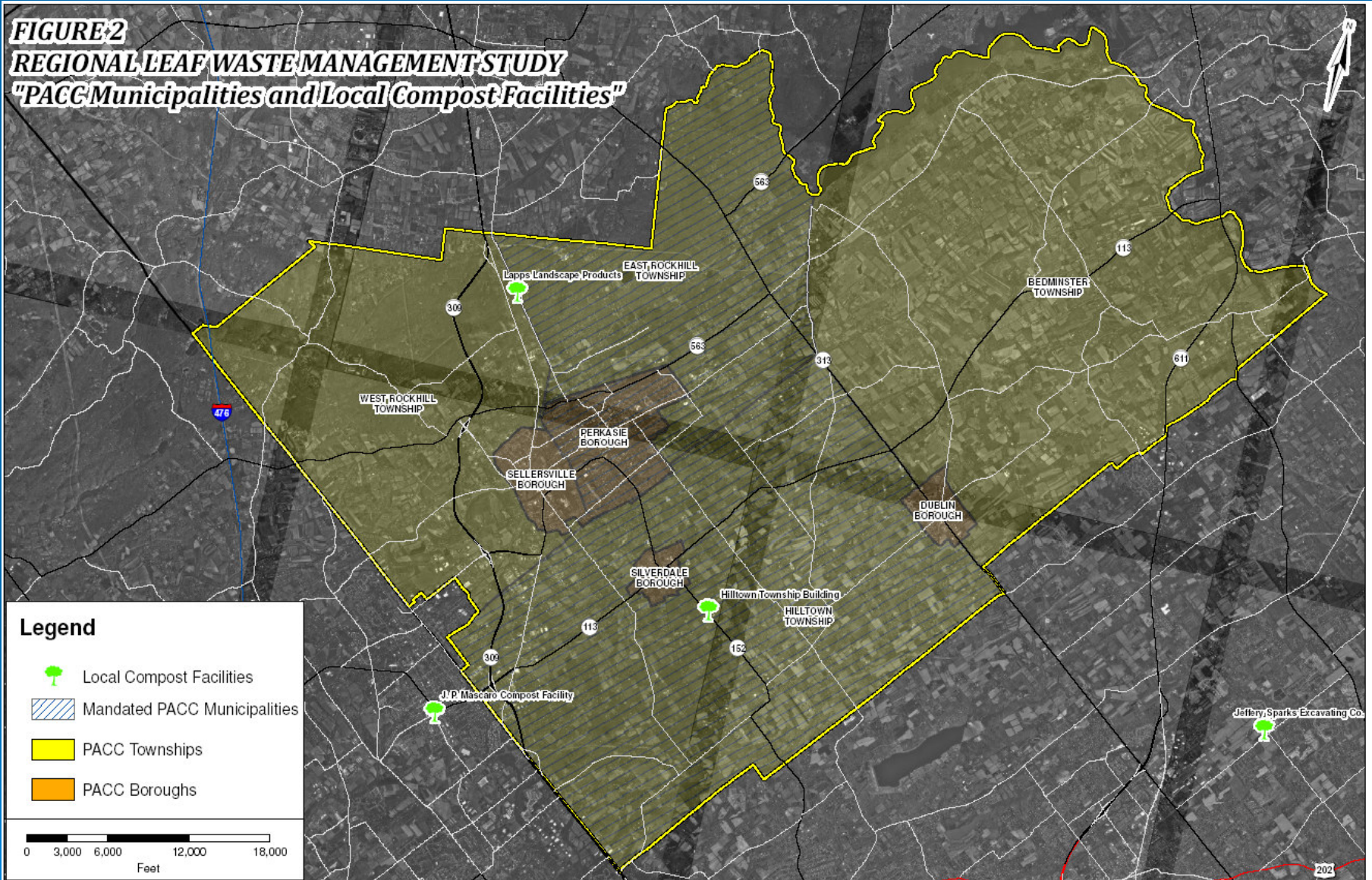
Who's in - who's out?



EXISTING WASTE MANAGEMENT SYSTEMS



FIGURE 2
REGIONAL LEAF WASTE MANAGEMENT STUDY
"PACC Municipalities and Local Compost Facilities"



PACC Municipalities: Waste Collection System Summary Table (2007)

Municipality	Year 2000 US Census (Occupied Households)	Waste Mangement System	Leaf and Yard Waste Collection System	Mandated Municipality
Bedminster Township	1,788	Home owner Contract (some Developments have service part of association fee)	None	No
Dublin Borough	851	Municipal Contract with Hauler (Allied Waste)	None (Currently devising a Leaf and Yard Waste Collection Program)	No
East Rockhill Township	1,828	Home owner Contract	None	Yes
Hilltown Township	4,275	Home owner Contract	None (Currently devising a Leaf and Yard Waste Collection Program)	Yes
Perkasie Borough	3,294	Municipal Collection (PAYT)	Leaves are collected in October and November by Borough vacuum trucks. The leaves are delivered to Lapps Landscape Products located on 1828 Old Bethlehem Pike in Selersville, PA 18960. Yard waste is collected once per month.	Yes
Sellersville Borough	1,770	Municipal Contract with Hauler (Allied Waste)	None	No
Silverdale Borough	323	Municipal Contract with Hauler (Ches-mont)	Semi-Annual Vacuum of leaves	No
West Rockhill Township	1,636	Home owner Contract	None	No

Homeowner Contract - Household individually subscribes with one of several local haulers.

Municipal Contract With Hauler - Municipality competitively bids to secure a single contracted waste hauler.

Municipal Collection - Municipality owns equipment and provides municipal staff for collection services.

Developing a Regional Leaf Waste Management System

Important to Have/Identify/Develop

- Cooperative Spirit
- Legally sound Implementing Mechanisms
 - (e.g. PACC(?) and inter-governmental agreements)
- Standardized Program Structures

Collection Options

Curbside

➤ Curbside

- What municipalities?
- What level of service (how many pick-ups)?
- What containers (bags, hard containers, or vacuum)
- Who picks it up?
- Where does it go?

➤ Drop-off

- Where (existing public and/or private facilities)
- New regional drop-off facility

ODB

SCL800SM

"One-Man Operation" Truck-Mounted Self-Contained Leaf Collector




Collection Options...con't.

- Competitive bidding for service
- Municipal collection (for PACC members)
- Each municipality act independently but standardize various aspects of programs

Processing Options

PADEP-approved compost facilities

- Existing private compost facility
 - Existing public (municipally operated) site
 - New regional compost facility
 - Equipment sharing system
- 

THE END



November 29th 2007 Meeting Summary
Re: **Regional Leaf Waste Management**
Gannett Fleming

PACC members:

This letter is an overview of our meeting held on November 29th at the Upper Bucks Community College with the PACC members and Planners concerning regional leaf waste management. In my presentation I emphasized that a cost effective way to achieve a reasonable level of residential leaf waste collection and management services is to include this service within the context of a planned regional waste management program. Without “bundling” waste and leaf waste services together in some fashion the collection and management of leaf waste as its own component is usually a cost that is tacked onto the fees for existing waste services. This additional cost would be absorbed by residents and/or the municipality(ies).

Certainly, adding leaf waste service to any waste management system has an inherent cost; however, the cost can be greatly reduced within a properly implemented regional waste management program where several municipalities work together to secure collection and processing services. In fact, there is an opportunity to add/improve leaf waste services and possibly other services (e.g. increased recycling, bulky-item pickup, etc.) and at the same time lower the residential trash bill. The demographics, particularly housing density, are favorable for a planned regional system. A preferred method for achieving a regional waste management and recycling program, including leaf waste services is through multi-municipal competitive bidding process where one qualified hauling company is secured and provides these services under contract to a number of municipalities.

Planning Questions and Direction

From this meeting and our discussions it was clear that two primary questions remain unanswered, but are important in determining the preliminary direction for this planning process. These two questions include:

- 1). What municipalities within the PACC are interested and willing to participate in a cooperative/multi-municipal effort to further evaluate leaf waste management alternatives.
- 2). Are the willing PACC municipalities open to evaluating a regional waste management system as a way to implement an economically feasible leaf waste management program or should this evaluation be limited to leaf waste?

Residential Survey

It was also determined that it would be beneficial for the PACC members to release a short residential survey to gauge public opinions related to certain waste management issues. Residential survey results can be an integral piece of background information used to support the planning and decision making process on important issues that affect the public. For consistency and comparison, the survey would ask the same questions in all the municipalities

that are willing to participate. Our survey approach will allow residents to respond on-line by clicking on a link to the survey that will be posted on the County and/or PACC website and would also go out as part of a newsletter to give residents the opportunity to respond in either format. Gannett Fleming has provided a **draft** of potential survey questions (see attached survey) and will work with the PACC to finalize the questions to more accurately reflect this project and the direction the PACC members wish to proceed with a regional program. GF recommends the PACC use Survey Monkey provided at www.surveymonkey.com for completing the on-line portion of this survey.

Please contact me with any questions.

Steve Deasy
717-763-7212 ext. 2538
sdeasy@gfnet.com

APPENDIX D –

PACC Questionnaire and Checklist

Not included in on-line Report

APPENDIX E –

Draft Residential Survey

Not included in on-line Report