

March 27, 2008



Ms. Marla Marcinko
Borough Manager
Borough of Wilkinsburg
605 Ross Avenue
Pittsburgh, PA15221

Dear Marla:

This letter report summarizes the findings of our evaluation of the direct costs to the Borough of Wilkinsburg (the Borough) for the collection of curbside recyclable materials versus the City of Pittsburgh's proposed cost to collect recyclables curbside during a one-year pilot program. In addition, R. W. Beck estimated the revenue that the Borough could potentially earn from negotiating a revenue share, and identified all material recovery facilities (MRFs) within a 50-mile radius. This evaluation was performed as part of a Recycling Technical Assistance project supported by the Pennsylvania Department of Environmental Protection (DEP) and the Solid Waste Association of North America (SWANA).

Details of the analysis are provided in the sections below.

Executive Summary

Solid waste collection within the Borough of Wilkinsburg is provided by City of Pittsburgh crews once per week for residential households of six units or less and by private entities for commercial households. Residential recyclable materials generated by Borough households are collected by Borough crews every other week using a split-compartment, rear-load collection vehicle. Fiber materials are placed in one compartment and commingled containers are placed in the other. Commercial recyclables are collected by private haulers. All recyclable material collected by Borough crews is processed at the Pittsburgh Recycling Services, Inc. materials recovery facility (MRF). There is currently no revenue sharing agreement between the Borough and Pittsburgh Recycling. Beginning in 2008, Borough residents and commercial entities will have the option to dispose of recyclable materials at one of three drop-off recycling trailers. These trailers were purchased through a grant from the Pennsylvania Department of Environmental Protection to increase recycling and decrease the amount of waste landfilled.

The Borough has received an offer from the City of Pittsburgh to conduct a one-year pilot program to collect recyclable materials from participating Borough households and some commercial establishments every other week using City crews and City-owned vehicles. The cost to the Borough would be \$225,000. Recyclables collected by City crews would be delivered to Recycle Management for processing. The pilot program would not involve any type of revenue sharing agreement. As such, the Borough requested that R. W. Beck identify and evaluate the current costs for the Borough to collect recyclable materials versus the proposed costs by the City of Pittsburgh for their proposed one-year pilot program. The Borough is also interested in understanding the potential revenue that could be obtained from the sale of their recyclable materials. As such, R.W. Beck identified two Pennsylvania communities with revenue-share agreements, and estimated revenues the Borough might potentially receive based on these communities' revenue-sharing agreements. In addition, the

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Borough was interested in identifying all materials recovery facilities (MRFs) located within 50 miles of the Borough, in the event the Borough decided to pursue their options for materials processing and revenue share agreements.

R. W. Beck's general findings are that the Borough's annual cost to collect recyclable materials is significantly less than the City of Pittsburgh's proposed one-year pilot program of \$225,000, both with and without potential revenue shares. The current annual direct cost to the Borough to collect recyclable materials is \$119,500. Assuming that the Borough is able to obtain a revenue sharing agreement with a MRF for the sale of their recyclable materials at the commodity prices mentioned in this report, R.W. Beck estimates that the Borough could obtain up to \$20,500 per year in revenue share revenues for residential recyclables, if they receive similar revenues on a \$-per-ton basis by material type that the City of Pittsburgh and Chester County receive for their materials. The City of Pittsburgh's one-year pilot program is offered at a cost of \$225,000. Thus it is estimated that the Borough saves approximately \$106,000 per year by conducting recyclables collections themselves, and could possibly save up to an additional \$20,500 per year if they were able to negotiate a revenue share agreement on par with Pittsburgh and Chester County's.

The amount of revenue share that the City can earn on recyclables depends upon several factors, and therefore, before making any final decisions about their recycling program, the Borough should first:

- Ensure that all direct and indirect costs of the current recycling program are included in the Borough's cost estimate;
- Hold discussions/negotiations with potential recyclables processing facilities, clarifying any processing costs, residue handling costs, and revenue share arrangements, based on 2007 tonnages collected curbside in the Borough; and
- Take into consideration any increased transportation costs that would be incurred, if the recyclables are delivered to a different MRF.

The Borough should be aware that revenue shares differ for each locality, depending on volume, residue matter, processing fees, contract length, and other important factors. Therefore, the revenues the Borough might expect to gain may differ from the examples provided in this report.

Introduction

Wilkesburg Borough (the Borough) is located in the east-central quadrant of Allegheny County, Pennsylvania. The Borough spans 2.1 square miles and is bordered by Penn Hills to the north, the city of Pittsburgh to the west, the Borough of Edgewood to the south, and the Boroughs of Churchill and Forest Hills to the east. The Borough is located approximately nine miles east of downtown Pittsburgh. A map of Allegheny County showing municipal boundaries is provided in Appendix A. The population of Wilkesburg Borough has been

decreasing since 1970. U.S. Census Bureau data shows that in 1970 the population of the Borough was approximately 26,800. By 1990 the population had declined to 21,080. Wilkesburg Borough's population has continued to decline, as the 2000 population was estimated to be 19,196 and the population in July 2006 was estimated to be 18,000. Even with the population loss, the Borough is still considered to be "urban," containing approximately 8,462 persons per square mile.

The Borough has requested technical assistance to help conduct a comparative analysis of the direct costs associated with the collection and transportation of recyclable materials by Borough crews versus what the City of Pittsburgh would charge the Borough for the collection and transportation of recyclable materials. In addition, this technical assistance project provides an estimate of the potential revenue that could be realized if the Borough had a revenue share agreement in place with a material recovery facility (MRF). To estimate the potential revenue gained by such an agreement, R. W. Beck benchmarked two communities that have revenue sharing agreements in place.

In addition to a comparative analysis of costs associated with recycling collection by Borough crews versus utilizing the City of Pittsburgh crews, R. W. Beck estimated the potential revenue gained via the sale of recyclable commodities, and as part of this task, R. W. Beck identified and provided contact information for all MRFs located within a 50-mile radius of Wilkesburg Borough that could potentially process and market recyclables for the Borough.

The report is organized as follows:

- Background Information;
- Description of the Borough's Current Collection Program;
- City of Pittsburgh's Proposed Collection Bid;
- Estimate of the potential revenue gained from the sale of recyclable materials;
 - City of Pittsburgh Revenue Sharing Agreement;
 - Chester County Revenue Sharing Agreement; and
- Material recovery facilities located within a 50-mile radius of the Borough.

The report also contains multiple appendices, including:

- Appendix A: Allegheny County Municipal Boundaries
- Appendix B: Borough of Wilkesburg Recycling Flyer
- Appendix C: Information Pertaining to Area MRFs.

Background

Wilkesburg Borough is a "mandated recycling" community as defined by PA Act 101. As such, the Borough is required by Act 101 to provide a residential *curbside* recycling program.

The Act stipulates that the mandated municipalities provide for the collection at least three (3) of the following materials:

- Clear glass;
- Colored glass;
- Plastics (#1 through #5);
- Aluminum cans;
- Steel and bi-metallic cans;
- High-grade office paper;
- Corrugated cardboard; and
- Newsprint.

Residents of the Borough have the opportunity to recycle paper materials and commingled containers curbside every other week using two separate bins. The Borough received a grant for the purchase of residential recycling containers. Recyclables collected in the Borough's curbside program include:

- Newspaper;
- Clear, green brown and colored glass;
- Aluminum cans;
- Bi-metallic and steel cans;
- Paper (magazines, mixed, phone, office, etc.)
- Corrugated cardboard; and
- Plastics (#1 through #5).

The Borough is not required to collect recyclables from commercial establishments. Instead, commercial establishments contract for their own collection with private haulers and are to submit their annual tonnages to the Borough. The submittal of tonnages by commercial entities to the Borough has not been done since the solid waste/recycling ordinance went into effect; however the Borough is currently working on implementing an educational/reporting program for 2008 for these establishments.

As of January 1, 2007 residential refuse (for single-family and multi-family dwellings of six units or less) in Wilkinsburg Borough is collected by the City of Pittsburgh refuse crews under contract with the Borough. Multi-family buildings with more than six units are served by Waste Management, Inc. under contract with the Borough. Commercial establishments contract independently and directly with a hauler for refuse removal. The Borough is in the process of determining whether, in addition to refuse, residential and commercial recyclables should be contracted out for collection to City of Pittsburgh crews.

Residential and Commercial Refuse Collection in the Borough

Wilkesburg Borough residential refuse is collected weekly in 10- to 35-gallon containers by the City of Pittsburgh refuse crews (dwellings with five or fewer units) or by Waste Management, Inc. (dwellings with six or more units) under contract with the Borough. Commercial establishments contract directly with a hauler of their choice for refuse removal. The total cost to the Borough for residential refuse collection and disposal for CY 2007 was \$722,000. The Borough has a three-year proposed contract in place with the City of Pittsburgh to continue solid waste collection and disposal through 2010. The Wilkesburg Council has authorized the execution of the three-year agreement but has not yet received the contract document from the City of Pittsburgh. The terms and conditions are not expected to change significantly from those outlined in the prior contract. Table 1 displays the costs associated with the program. It should be noted that there is no separate tipping fee in the refuse contract with the City, as disposal costs are included in the contract price.

Table 1
Wilkesburg Borough Solid Waste Collection and Disposal Costs

Calendar Year	Annual Percent Increase	Total Annual Cost (\$)
2007	N/A	722,000
2008	3.9%	750,000
2009	3.5%	775,000
2010	4.5%	810,000

Curbside Recycling

Currently recyclables from single-family and multi-family units (of six and under) are collected curbside by a two-person Borough crew every other week on the regularly scheduled garbage day using a recently purchased 25-cubic yard split-body, rear-load recycling truck. The rear-loader was purchased from Scott Township, and is the same model used by the City of Pittsburgh crews. The rear-loader compacts materials allowing for fewer return trips to the Borough garage or to the MRF. A single split-compartment side-loading truck, (purchased with assistance from the DEP), which the Borough owns and maintains, is used as an emergency vehicle in the event the rear-loader is inoperable. Because this vehicle was purchased with DEP grant funds, it is possible that PA DEP would ask the Borough to repay the state for the vehicle if the Borough were to no longer provide curbside recycling in the Borough. If the vehicle has lived its useful life, or can be used for some other recycling purpose, however, the DEP may not require this. The Borough should discuss this matter, however, with their DEP regional office, in order to fully understand their options. The

Borough's Regional DEP representative is Brad Cunningham of the DEP Southwest Region office, who can be reached at 412-442-4000.

As of December 2007, residential and commercial recyclable materials collected by the Borough and private haulers are taken to the Pittsburgh Recycling Services, Inc. MRF for processing. In 2006 approximately 408 tons of clean residential recyclables and 102 tons of clean commercial recyclables were generated in the Borough and processed at the MRF. There is no revenue sharing agreement for these materials, nor is there a separate processing fee.

Currently recyclables collected within the Borough by Borough crews or private haulers (from commercial establishments) are delivered to Pittsburgh Recycling for processing and marketing. The Borough does not have a revenue sharing agreement with Pittsburgh Recycling, nor do they have a contract or memorandum of understanding to deliver materials to the facility, nor does the Borough pay a processing fee. Pittsburgh Recycling has been cooperative in providing tonnage data to the Borough, which the Borough uses to receive credit for their annual recycling performance grant. Table 2 presents a summary of the estimated direct costs associated with the Borough's current collection of recyclable materials.

Table 2
Estimated Costs of Borough's Curbside Recycling Program
CY 2007

Personnel Costs			
Cost Item	Salary	Benefits	Estimated Salary + Benefits¹
Driver Number 1	N/A	N/A	\$55,000
Driver Number 2	N/A	N/A	\$55,000
Admin & Support Staff	N/A	N/A	N/A
Total Overtime	\$0	\$0	\$0
<i>Estimated Sub-Total:</i>	<i>\$0</i>	<i>\$0</i>	<i>\$110,000</i>
Transportation Costs			
	Avg. Annual Fuel Cost	Avg. Annual Maintenance Cost	Estimated Total Transportation Costs
International Rear-loader	\$6,500	\$3,000	\$9,500
<i>Estimated Total Cost:</i>			<i>\$119,500</i>

¹ The total salary & benefits costs, including dispatch fee, provided by the Borough. No separate breakout for salary or benefits was provided.

As Table 2 indicates, the estimated cost of the Borough's recycling program is \$119,500 per year. If the Borough decided to contract out recyclables collection, it is possible that the rear load vehicle could be used for other purposes. Similarly, if the Borough is able to use the rear-load collection vehicle for other purposes while still providing the recycling program, an

appropriate portion of vehicle maintenance costs and fuel costs should be allocated to a different cost center. The Borough was not able to identify administrative and support staff costs dedicated to the recycling program, however it is expected that some administrative staff time is dedicated to this program, and to the extent the Borough can identify these costs, they will have a more accurate picture of the costs associated with their program. It should be noted that maintenance costs can vary significantly, but on average are \$3,000 per year.

Drop-Off Recycling

Beginning in 2008, Borough residents and commercial entities will have the option to deliver recyclable materials at one of three drop-off recycling trailers. These trailers were purchased through a grant from the Pennsylvania Department of Environmental Protection to increase recycling and decrease landfill expenses. All materials accepted curbside are also accepted at the three drop-off locations. Appendix B provides a flyer detailing the Borough's residential and commercial curbside and drop-off program programs. It is expected that the addition of this program will increase overall recycling tonnages.

City of Pittsburgh's Proposed Recycling Collection Pilot Program Bid

In addition to residential and commercial refuse collection, the City of Pittsburgh has proposed a one-year *residential only* recycling pilot program at a cost of \$225,000 to the Borough. The city has not yet formally presented a proposal for this residential recycling collection pilot program; however city crews would collect the same materials currently collected from all participating Borough households. City crews would collect materials every other week using City collection vehicles. All recyclables collected by the City crews would be delivered to either Pittsburgh Recycling or Recycle Management for processing and marketing. As the proposal currently stands, any revenue the City shares in from the sale of the commodities would be the property of the City. The Borough's direct costs associated with providing curbside recycling are an estimated \$105,500 less than the City of Pittsburgh's proposed cost of \$225,000 for providing curbside recycling. These savings could be even greater if the Borough were able to negotiate a revenue share agreement with a local MRF.

Description of Selected PA Revenue Share Programs

Currently all residential recyclable materials collected by Wilkinsburg Borough's municipal crews are delivered to Pittsburgh Recycling Services, Inc. (PRS) for processing and marketing. In 2006 approximately 408 tons of clean residential recyclables generated in the Borough were processed at the PRS MRF. There is no revenue share agreement in place with PRS for the sale of recyclable materials. An additional 102 tons per year are reportedly collected from the commercial sector, however, as described above, this figure is expected to understate recycling because commercial recycling reporting requirements have not been strictly enforced.

As such, R.W. Beck was asked to determine the estimated gross revenue (dollar-per-ton) by commodity type that the Borough could expect to receive if they entered into a revenue sharing agreement with either PRS or another MRF.

R. W. Beck surveyed two communities that currently have revenue sharing agreements with a MRF for the processing of newspapers and/or other fiber materials and commingled recyclables. The two communities chosen were the City of Pittsburgh and Chester County, Pennsylvania. Representatives of the identified communities were interviewed to determine the current end market prices for recyclables, key language in their contract, pricing caps (floors or ceilings), and the “pros vs. cons” of their processing contract. Discussions focused on the different revenue sharing options, including the overall dollar-per-ton obtained per commodity type. The following two sections broadly explain the revenue sharing agreements between Pittsburgh and Chester County and their respective MRFs. It should be noted that revenue share agreements between providers of recyclables and MRFs can fluctuate depending upon several factors, including but not limited to:

- tonnage of recyclables delivered;
- material quality;
- duration of the contract; and
- competition for MRF processing.

Therefore, the estimate developed is intended to serve as an example of what some communities in Pennsylvania are currently receiving for a revenue share for their recyclables. The actual amount of revenue the Borough will generate will depend upon the agreement they are able to negotiate. Because the Borough is relatively small, and therefore generates a relatively small amount of recyclables, the revenue that the Borough could expect to receive may be lower. Also, if a revenue share is negotiated, a MRF may desire to charge a processing fee and/or a residue disposal fee (or a residue disposal fee for residue generated over a certain percentage, such as 5 percent of the weight of incoming recyclables). In theory, Pittsburgh would have to pay residue fees if their residue rates exceeded the allowable rate (up to 1 percent for prohibited materials, and 2 to 5 percent for total outthrows, depending upon the commodity), however this has never been an issue. Chester County is not subject to residue fees, as haulers are liable for contamination.

City of Pittsburgh Materials and Commodity Values

Recycling is mandatory for every resident, business, office and institution within the City of Pittsburgh. City crews, under the Bureau of Environmental Services, provide bi-weekly curbside recycling collection to single-family, multi-family, and non-profit institutions that complete a service agreement form with the City. In addition to curbside collection services the City provides a recycling drop-off service for residents and small businesses.

Material collected curbside and via drop-off programs within the City are delivered to one of three major processors, all located within the greater Pittsburgh/Allegheny County area. The City has entered into long-term contracts with all three processors. Table 3 shows the commodity type, collection process, contract length and processor for all materials collected curbside and via drop-off locations within the City.

Table 3
City of Pittsburgh Curbside and Drop-off Recycling Commodity Information

Processor Name	Materials Collected	Collection Type	Contract Length
Recycle Management	Commingled Containers ¹ Newspaper	Curbside	4/01/2006 to 3/31/2010
Atlas Waste Paper Southside	File Stock Super Office Mix	Drop-off	9/01/06 to 6/30/2009
Pittsburgh Recycling/Hazelwood	OCC Baled OCC News Magazines/Catalogs CPO (green bar) White Ledger Mixed Paper Mixed Color Ledger	Drop-off	9/01/06 to 6/30/2009

¹ Glass bottles; Plastics (#1, 2, 3, 4, 5); Metal Containers (aluminum, steel, bi-metal cans)

As Table 3 indicates, the City's curbside contract is for four years while the drop-off contracts are for three years. Depending on how a contract is structured, a potential advantage of having a longer-term contract with a processor is that the City is guaranteed a certain long-term commodity value and is thus protected in the event that markets for one or more commodities fall, due to the structure of their contract (a certain \$-per-ton by commodity type is provided over the course of the contract). Also, because the City is willing to guarantee that they will provide recyclables to the MRFs for multiple years, the MRF may be more willing to provide favorable pricing vs. a shorter-term contract. Conversely, the disadvantages of having a long-term contract with specific revenue shares (e.g., not tied to market prices) include:

- if commodity prices increase, the City does not share in that revenue gain; and
- if the City is not pleased with the processor, they are not free to deliver their materials elsewhere.

Other communities, however, including Chester County, have a revenue share structure that links the revenue share value to the commodity price so that the market risk is shared, although this may make it more difficult to predict revenue streams.

The City of Pittsburgh provided information to R.W. Beck regarding the \$-per-ton paid by the individual processors to the City for the commodities delivered to the MRF via the curbside and drop-off programs in addition to the total tons collected. However, for purposes of this section, only the \$-per-ton received for the individual commodities are relevant to the Borough, and are summarized in Table 4 below. As stated previously, these commodity values were negotiated between Pittsburgh and the MRF and the revenues that the Borough could receive are dependent on what the Borough could negotiate. Note that the City of Pittsburgh collected almost 9,000 tons of curbside materials and slightly over 700 tons of material from their drop-off program in 2006. This is substantially more than the Borough collects, therefore the revenue share may be higher than what the Borough could expect to receive for their recyclables.

Table 4
Summary of Revenue Share Received by Pittsburgh for Specific Recyclables

Commodity Type	Collection Method	Revenue Share \$/Ton
Commingled Containers ¹	Curbside	\$46.46 ²
Newspaper	Curbside	\$56.56
OCC	Drop-off	\$40.00
Baled OCC	Drop-off	\$50.00
Newspaper	Drop-off	\$56.56
Magazines & Catalogs	Drop-off	\$10.00
CPO (green bar)	Drop-off	\$120.00
White Ledger	Drop-off	\$120.00
Mixed Paper	Drop-off	\$20.00
Mixed Color Ledger	Drop-off	\$65.00
File Stock	Drop-off	\$40.00
Super Office Mix	Drop-off	\$65.00

¹ Glass bottles; Plastics (#1, 2, 3, 4, 5); Metal Containers (aluminum, steel, bi-metal cans)

² Price is for all commingled commodities combined. No break out for each individual commodity

Chester County, PA

In Chester County, the County has a contract with BFI Recyclery for the processing and marketing (P&M) of recyclable materials. The contract allows other entities to join in. In 2006

11 municipalities and two authorities (The Chester County Solid Waste Authority and the Central Chester County Recycling Authority, or CRRA, which represents five additional municipalities) participated in this revenue sharing agreement with the County. Collection methods and materials collected within the County vary by municipality, but household items typically collected in the program include:

- Aluminum and bi-metal containers;
- Brown and green glass;
- Newspaper;
- Corrugated cardboard;
- Mixed paper; and
- Plastics #1 & 2.

Recycling tonnages by commodity type and revenue earned for 2007 from Chester County were analyzed for this project. The per-ton commodity values are summarized in Table 5.

Table 5
Summary of Revenue Share Received by Chester County for Specific Recyclables¹

Material Type	Jan - March.	April-June.	July-Sept.	Oct.-Dec.	Average
Corrugated	\$39.50	\$117.00	\$82.00	\$87.00	\$81.38
Mixed Paper	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Clear Glass	\$16.50	\$21.50	\$21.50	\$21.50	\$20.25
Brown Glass	\$10.00	\$12.50	\$12.50	\$12.50	\$11.88
Green Glass	\$17.50	\$22.50	\$22.50	\$22.50	\$21.25
Aluminum Cans	\$1,490.00	\$1,730.00	\$1,760.00	\$1,460.00	\$1,610.00
Steel/Bimetal Cans	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00
PET/HDPE	\$126.00	\$189.60	\$226.40	\$256.33	\$199.58
Commingled Materials	\$29.78	\$40.40	\$49.22	\$52.12	\$42.88
Commingled Cans	\$94.27	\$104.27	\$105.77	\$105.77	\$102.52

¹ Chester County pricing for their P & M Contract based on the June 27, 2007 Northeast Region Secondary Materials and Fiber pricing schedules.

Estimate of Possible Revenue Share to Be Gained in Borough

Based on the revenue shares received by the City of Pittsburgh and Chester County's consortium, R. W. Beck estimated the potential revenues that Wilkesburg Borough might generate if they were able to negotiate a similar revenue share agreement. Again, there are many factors involved in negotiating a revenue share agreement, and generally generators of significant quantities of high-quality (e.g., low contamination rate) recyclables are in the best position to negotiate a strong revenue share agreement. Therefore, the Borough may not be able to negotiate revenue shares as high as those presented.

Table 6 provides an estimate of the potential revenue share the Borough could gain, given 2007 tonnages, and the City of Pittsburgh and Chester County's revenue share agreements.

Table 6
Potential Curbside Recycling Revenue Share – Residential Recyclables

Material Type	\$/Ton Chester County (Avg. 2007)	\$/Ton Pittsburgh (Current)	Estimated Tons/Year (2007)	Estimated Annual Revenue Range
Newspaper	\$20.00	\$46.46	247.02	\$4,940.40 - \$11,476.55
Commingled Containers	\$42.88	\$56.56	160.53	\$6,883.53 - \$9,079.58
Total				\$11,823.93 - \$20,556.13

As Table 6 indicates, the Borough could potentially earn between \$11,823 and \$20,556 by negotiating a revenue share agreement for residential recyclables. Because the Borough is a relatively small generator of recyclable materials, it is more likely that the Borough would be able to negotiate a revenue share that would result in revenues in the lower end of that range, or perhaps even lower.

Table 7 provides the potential revenue share that the Borough might be able to gain on commercial recyclables if they were able to fold commercial recycling into the revenue share program, based on reported commercial tons recycled in the Borough and the revenue share agreements in Chester County and the City of Pittsburgh.

Table 7
Potential Recycling Revenue Share – Commercial Recyclables

Material Type	\$/Ton Chester County (Avg. 2007)	\$/Ton Pittsburgh (Current)	Estimated Tons/Year Wilkinsburg (2007)	Estimated Revenue Range/Year
Corrugated Cardboard	\$81.38	\$40.00	86.01	\$3,440.40 - \$6,999.49
Aluminum Cans	\$1,610.00		1.02	\$1,642.20
Commercial Office Paper		\$65.00	15.36	\$998.40
Total		\$6,081.00 - \$9,640.09		

As Table 7 indicates, if the Borough included commercial recycling in their program, they could expect to earn between \$6,081 and \$9,640 per year in revenues from recycling separated commercial office paper, aluminum cans, and corrugated cardboard generated by commercial establishments, if they could negotiate a similar revenue share as Pittsburgh and Chester County. Note, commercial recycling is expected to be understated in the Borough, and additional materials are likely recoverable, so while the Borough may not be able to generate revenue shares as high as those indicated in Table 7 on a \$-per-ton basis, the Borough might be able to generate more tons of commercial recyclables than indicated in Table 7. Of course these revenues would only accrue if commercial recycling can be included in a revenue share program along with curbside recyclables.

As Tables 6 and 7 show, the Borough could potentially earn between \$17,905 and \$30,196 per year, based on the revenue shares received by the City of Pittsburgh and Chester County, applied to 2007 Borough recovery rates. If the Borough is not able to service commercial recycling containers due to equipment limitations, it may not be realistic to consider including commercial recyclables in the Borough's program. However, some commercial recyclables may be collected through the drop-off program.

Cost Comparison – City of Pittsburgh vs. Borough Collection with Revenue Share

The City of Pittsburgh indicated that City crews could provide curbside recycling collection and processing of recyclables for \$225,000 per year. As described above, there would be no revenue share under this arrangement.

Table 8 provides a planning-level, side-by-side comparison of the City of Pittsburgh’s proposed collection costs, relative to the Borough’s current recycling program cost, and relative to a Borough program with a revenue share applied to residential recyclables.

For the sake of this analysis, it is assumed that the Borough would receive the mid-point in the range of revenue shares for residential recyclables described in Table 6, which is \$16,190. Wilkesburg Borough should use this information as a general guideline only, as their actual revenue share that they are able to negotiate may differ based on several factors, including quantity delivered, duration of contract, quality of material, level of competition, etc.

Table 8
Net Cost Analysis of Curbside Collection Options

	Estimated Annual Costs	Estimated Annual Revenues	Estimated Annual Net Costs
City of Pittsburgh Option	\$225,000	\$0	\$225,000
Current Cost Without Revenue Share (Status Quo)	\$119,500	\$0	\$119,500
Borough Option (Status Quo with Residential Revenue Share)	\$119,500	\$16,190	\$103,310
Potential Cost Savings of Borough Option with Residential Revenue Share (Vs. Pittsburgh-Provided Service with No Revenue Share)			\$121,690

As Table 8 shows, the Borough could potentially save \$121,690 per year if they were able to obtain similar revenue shares as the City of Pittsburgh and Chester County obtain, by providing residential curbside recycling with Borough crews, versus contracting with the City of Pittsburgh to collect materials. One reason that the Borough can collect recyclables so cost-effectively is that they are not incurring any capital cost for their collection equipment. However, even if the Borough purchased a collection vehicle for \$140,000 and amortized it over seven years, assuming no interest, the cost would be approximately \$20,000 per year – which would still make the Borough-provided collection option the most cost-effective option.

Besides costs, there are other strengths and weaknesses associated with providing curbside collection of recyclables with Borough crews, as opposed to contracting with another hauler (such as the City of Pittsburgh) for the service. These strengths and weaknesses are summarized below.

Strengths of Borough Collection of Recyclables

- The Borough has more flexibility to make program changes, for example in collection frequency, schedules, and materials accepted;
- The Borough has more control over and accountability for service, which usually leads to a higher level of customer service; and
- The Borough does not have to monitor a service provider.

Strengths of Contracting for Collection Services

- Contracted service costs are usually easier to budget for than Borough-provided services, the costs of which can vary significantly from year to year (for example, fuel costs and vehicle maintenance costs); and
- Overall administrative burden to the Borough may be minimized, particularly if customers are asked to contact the hauler if collection is missed, rather than the Borough.

MRFs Located Near the Borough

As part of this project, R. W. Beck identified all MRFs located within a 50-mile radius of the Borough, with the aid of a PA DEP database. A summary of the information pertaining to MRFs located within 25 miles of Wilkinsburg Borough is provided in Table 9. A complete listing of these MRFs, including all MRFs located within 50 miles of the Borough, is provided in Appendix C. Appendix C includes MRF name, address, contact information, materials accepted, and the form the materials are accepted in (commingled, etc.). If the Borough wishes to pursue a revenue-sharing agreement with any of these MRFs, this information can be referenced. The Borough should prioritize MRFs located within a 25-mile driving distance, in order to reduce transportation costs.

Table 9
Summary of MRFs in Close Proximity to Wilkinsburg Borough

MRF Name	Location	Miles from Wilkinsburg Borough	Materials Accepted
Pittsburgh Recycling Services	Pittsburgh	7	Dual Stream
Recycle Management Corp.	Carnegie	18	Dual Stream
Recycle Management Corp.	Neville Island	23	Commingled (Containers only)
Joseph Brunner Recycling	Ambridge	33	Commingled (Containers and OCC only)

Recommendations

R. W. Beck recommends that in determining whether or not to accept the City of Pittsburgh's proposal to collect recyclable materials from Borough households, the Borough carefully reviews their recycling collection costs to determine whether any additional costs need to be considered before assessing whether the Borough should contract for collection services. Oftentimes indirect costs are borne, such as administrative staff time, etc., which, when tallied, can be quite significant. Similarly, the Borough should try to estimate similar indirect costs that would be borne if the Borough contracted out services (such as time associated with contract negotiations, contract management, etc.).

Based on the information provided by the Borough, it appears that the Borough would save approximately \$105,500 per year by maintaining its recycling collection program, as opposed to contracting for collection with the City of Pittsburgh, even without a revenue share. If a revenue-share agreement were in place, it is possible that the Borough could save up to an additional \$11,824 - \$20,556 per year, assuming the Borough is able to achieve a revenue share agreement on par with those of Chester County and Pittsburgh. Additional recommendations include:

- The Borough should contact representatives of the various MRFs identified in the area to discuss their potential interest in a revenue share arrangement. The Borough should also specifically ask the MRF representatives if they have any such agreements in place currently, and if so, whether they charge these customers processing and residue disposal fees. In addition, they should ask the MRF representative if they are open to a potential revenue share, and if so, would there have to be a minimum tonnage delivered under the

Ms. Marla Marcinko
Borough of Wilkinsburg
March 27, 2008
Page 17

agreement. While the Borough is expected to find the most cost-effective arrangement within a 25-mile range, it should not strictly limit its search to those MRFs located within 25 miles of the Borough.

- The Borough should consider contacting surrounding communities to see if they would potentially be interested in implementing a recycling collection program or negotiating a recyclables processing contract jointly with the Borough. This may allow the Borough and any other entities joining with them to strengthen their negotiating power. It would be advisable that any communities joining consider implementing the same recyclable program (e.g., accepting the same materials, with the same degree of separation), and sharing in developing and disseminating education and outreach materials, to increase participation rates and material quality.
- If they have not already done so, the Borough should consider contacting the City of Pittsburgh to see if the City would be interested in implementing a revenue sharing agreement with the Borough in the event the City is awarded the recycling collection contract.
- The Borough should consider implementing a recycling education campaign to increase the amount of recyclable materials collected from residential and commercial establishments. This would likely result in increasing the amount of materials collected, thereby reducing the cost of the program on a \$-per-ton basis. Quality would also be likely to be impacted in a positive manner, which may reduce any residue disposal fees that MRFs may charge.

We hope that these findings are useful to the Borough. . R. W. Beck appreciates the opportunity to work with Wilkinsburg Borough on this project. If you have any questions or concerns, please feel free to contact Susan Bush at 508-935-1807.

Sincerely,

R. W. BECK, INC.



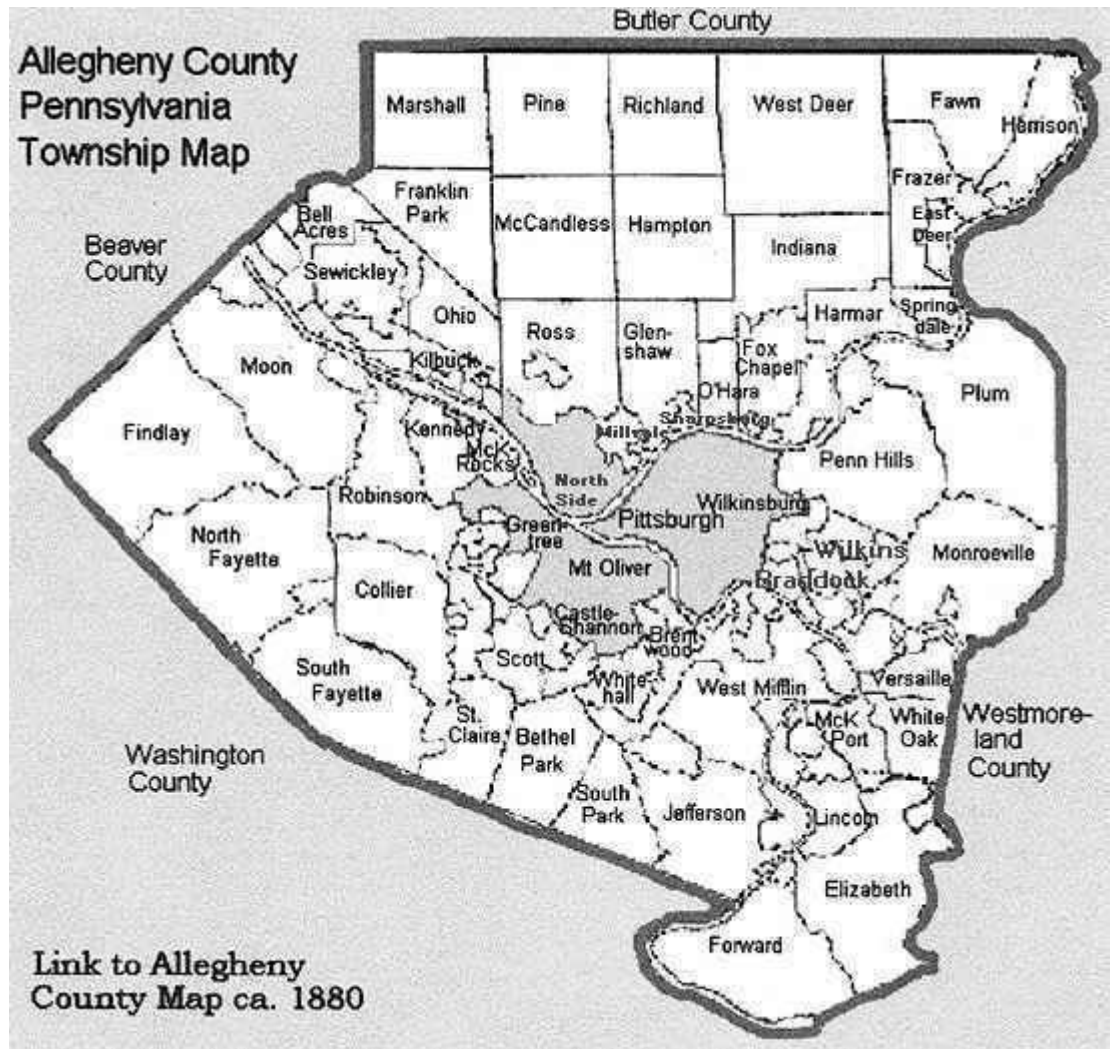
Kristian C. Ferguson
Consultant Analyst



Susan Bush
Project Manager

KCF: ls

Appendix A ALLEGHENY COUNTY MUNICIPAL BOUNDARIES



Source: <http://www.rootsweb.com/~usgenweb/maps/pa/county/alleggh/usgs>

/

Appendix B
BOROUGH OF WILKINSBURG RECYCLING FLYER

APPENDIX B

Borough Of Wilkinsburg
605 Ross Avenue
Wilkinsburg, PA 15221

FIRST CLASS
U.S. POSTAGE
PAID
PITTSBURGH, PA
PERMIT NO. 5092

Borough of Wilkinsburg RECYCLES

WINTER 2008 • Residential Newsletter • 605 Ross Street • Wilkinsburg, PA • 15221

Questions about recycling should be directed to the Borough Manager's office at: 412-244-2900 ext 101

RECYCLING PICK UP

Newspapers
place in bin or tie in bundles
Plastic (1, 2, 3, 4, 5)
Glass
Metal Containers
(aluminum, steel, bi-metal)
including empty paint and aerosol cans
Rinse containers and discard all lids and caps.
Place in bin only for containers clearly marked "Recycling".

EVERY OTHER WEEK

Place at curb no earlier than 7 p.m. on the night before collection and no later than 6 a.m. on the day of collection.

Remove recycling materials from container and set away from refuse.

DROP OFF RECYCLING TRAILERS

Same items that are picked up at curb side.
(newspapers, plastic, glass and metal containers)
Plus... **Corrugated Cardboard** (must be dry and flat)
Magazines, Catalogs, Paperboard (loose)
White Office Paper, Junk Mail and Hardcover/Phone Books.
Failure to follow these guidelines may result in a citation being issued.
For more information, call

REFUSE

Household trash
Place all refuse at the designated site on collection day in plastic bags or bagged and placed into a container not exceeding 35 gallons in size. Place needles, syringes and lancets in a hard plastic container with a tight-fitting plastic lid, labeled as medical waste. Wrap sharp objects (broken glass/sharp metal) in heavy paper and place in a

box reinforced with tape or string. Place animal feces and litter in double plastic bags and place outside the refuse container.

Curb side
Borough DOES NOT COLLECT carpeting installed by a professional, construction, building, explosive, medical, hazardous, infectious or flammable materials as well as car and automobile parts, bricks, cement, glass blocks, or marble or stone countertops.

Weekly pick up
Place at curb no earlier than 7 p.m. on the night before collection and no later than 6 a.m. on the day of collection.

BULK ITEMS

Large items such as furniture, large appliances and discards from small renovation projects

Bulk items include sofas, recliner chairs, tables, box springs,

mattresses, dressers, large TVs, stoves, washers, dryers, toilets, hot water tanks, windows, and fencing in bundles not exceeding 35 pounds or 5 feet in length. Any excess material and other excessively large items above the two-item limit will NOT be collected unless special pickup arrangements are made in advance. A cost of \$100 for each half-hour applies to special pick-up. Call 412-255-2773.

Curb side (maximum 2 items per week) Borough DOES NOT COLLECT Freon appliances (refrigerators, air conditioners or dehumidifiers).

Weekly pick up
Place at curb no earlier than 7 p.m. on the night before collection and no later than 6 a.m. on the day of collection.

NOW RECYCLE MORE CURBSIDE

Together We Can Make a Difference.

Beginning January 1, recycling crews will be collecting additional recyclable items at the curb in Wilkinsburg borough. In addition to your regular curbside recycling items (bottles, cans and newspaper), residents may now also recycle the following items at the curb on your recycling collection day:

- *Magazines, catalogs, paperboard, junk mail, mixed paper, phonebooks and office paper (all colors) at the curb.*
- *Corrugated cardboard (must be broken down, flattened). Pizza boxes must be clean and empty (that is, free of food and wax paper).*

Here's the best part: All recyclables can be placed together in the same containers now used for newspaper and cans and bottles. Your tall "newspaper" (image) bin will hold all your paper and cardboard products. Your shorter "cans and bottle" (image) bin will now hold all cans, bottles and plastics (image 1-5) marked #1-5.

Remember to always place recyclables away from regular garbage on collection day. Also, please discard all caps and lids from bottles and please do not add any other materials to the list above, otherwise they will contaminate the recycling. Do not place Styrofoam out for recycling, dispose of it in your regular garbage.

Once the recycling is collected, it is then separated at the single-stream recycling plant using modern technologies and marketed as individual commodities. We hope this will make recycling easier and more convenient for you, as well as double our recycling tonnages and significantly reduce our landfill disposal cost. For more information contact the borough managers office at 412-244-2900 ext 101.



Corrugated Cardboard



Magazines



Junk Mail & Mixed Paper



Phone Books



Paperboard

Wilkinsburg Borough purchases "Recycling Trailers" for residential and commercial RECYCLING DROP-OFF CENTER



In cooperation with the PA Department of Environmental Protection the borough obtained three recycling trailers to facilitate recycling at convenient drop off sites. Our goal, our mission is to increase recycling tonnage and decrease land fill expenses. In the year 2008 we have expanded the number of items residents and commercial businesses can recycle. All cans, bottles and plastics (#1-5) are now accepted at curbside and at the drop off locations. In addition to newspapers we now can recycle magazines, catalogs, paperboard, junk mail, mixed paper, phonebooks and office paper (all colors). Corrugated cardboard (must be broken down, flattened). Pizza boxes must be clean and empty (that is, free of food and wax paper). "Together we can make a difference".

Be on the look out for our new recycling trailers:

- Parking Lot at Wallace Avenue and Pitt St.
- 789 Penn Avenue the parking lot next to the Penn Lincoln
- DPW Garage on Park Avenue and remember

• **Keep Your Garbage Fees Down** recycling helps to control your refuse hauling fees by keeping the amount of trash down

• **Bring In Money For Borough Services** the more tons of recycling the Borough collects, the more grant money we are able to apply for from the State DEP, and the more revenue will be gained from the sale of recyclables.

• **The trailers** (above), this newsletter, and a new, more efficient recycling vehicle are among items paid for with a State DEP grant that was obtained based on our recycling program. The Borough received approximately \$21,000 in 2007 from the state in a performance grant. The more we recycle, the more money we will receive.

• **Help Save The Environment** The more materials we recycle, the less energy is expended to create new materials, the more resources we conserve and the more trash and pollutants are kept from entering the environment. Recycling helps to keep our water and air clean, save our wildlife, and keep our streets clean.

REDUCE...REUSE...RECYCLE!

Welcome to the Borough of Wilkinsburg's RECYCLING DROP-OFF

Please read and follow all recycling instructions carefully!

Acceptable

- Plastics, numbers 1 through 5 (when in doubt, check the recycling symbol on the bottom)
- All aluminum and all size glass (beverage containers)
- Glass bottles, jars and jars (no light bulbs, window glass, etc.)
- Corrugated cardboard (boxed items and flat) into dot marked "Cardboard Only"
- Mixed paper (including old magazines, paper, junk mail, newspapers, phonebooks, new paper, flyers, pamphlets, brochures, posters, booklets)



Un-Acceptable

- Tires
- Appliances
- Light bulbs
- Windows/glass
- PVC pipes
- Plastic bags
- Styrofoam
- Appliances

Place all recyclable materials inside trailer through designated openings. Do not leave recyclables on the ground. Do not place trash, cans, tires or other non-recyclables in trailers. Close all trailer doors after loading the recyclables. Do not drink or play on or around trailers. For recycling related questions please call 412-244-2900.

Thank you for your participation!

2008 Calendar

JANUARY

SUN	MON	TUES	WED	THURS	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
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27	28	29	30	31		

FEBRUARY

SUN	MON	TUES	WED	THURS	FRI	SAT
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MARCH

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APRIL

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MAY

SUN	MON	TUES	WED	THURS	FRI	SAT
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JUNE

SUN	MON	TUES	WED	THURS	FRI	SAT
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JULY

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AUGUST

SUN	MON	TUES	WED	THURS	FRI	SAT
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SEPTEMBER

SUN	MON	TUES	WED	THURS	FRI	SAT
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OCTOBER

SUN	MON	TUES	WED	THURS	FRI	SAT
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NOVEMBER

SUN	MON	TUES	WED	THURS	FRI	SAT
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DECEMBER

SUN	MON	TUES	WED	THURS	FRI	SAT
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21	22	23	24	25	26	27
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Recyclables are picked up every other week on your regular garbage day. If you have any questions please call 412-244-2900 ext 101. Please refer to the Wilkinsburg Sun for specific holiday recycling and trash collection information.

Appendix C

AREA MATERIALS RECOVERY FACILITIES

APPENDIX C

Facility Name	Facility Address	Phone	Estimated Miles from Wilkinsburg Borough	Contact Name	Email Address	Service Area	Materials Accepted	What Form Materials Accepted
Pittsburgh Recycling Services	50 Vespuccius St Pittsburgh PA 15207	412-420-6000	7	Ron Herbert	nfo@recyclingit.com	Allegheny, Butler, Westmoreland and Washington Counties	Plastics 1 & 2, 3 colors of glass, tin & aluminum cans, newspaper, office paper, magazines and cardboard, hardback books, phone books, scrap metal, * Call about industrial plastics	Commingled with fiber source separated
Recycle Management Corporation	73 A West Noblestown Rd P.O. Box 298 Carnegie PA 15106	412-429-8522	18	Tom Adamek	Tadamek@vienzion.net	South Hills, Pittsburgh and Youngstown OH.	Plastics 1 & 2, 3 colors of glass, tin & aluminum cans, newspaper, office paper, phone books, junk mail and cardboard	Commingled with fiber source separated
Joseph Brunner Recycling	2973 Duss Ave Ambridge PA 15003	724-266-2268	33	Harold Pollock	NA	Allegheny, Butler & Beaver Counties	Plastics 1 & 2, glass 3 colors, corrugated cardboard, aluminum and tin.	Commingled
Armstrong County Recycling Center	139 Armsdale Rd Kittaning PA 16201	724-548-8048	42	Tom Aumanick	NA	Armstrong County	Plastics 1&2, 3 colors of glass, tin & aluminum cans, office paper, magazines, cardboard, newspaper, waste oil	Source separated
Indiana County Solid Waste Authority	1715 Route 119 South Homer City, PA 15748	724-479-0444	46	Timothy Long	icswa@ptd.net	Indiana, Cambria, and Armstrong Counties	Plastics 1 & 2, 3 colors of glass, tin & aluminum cans, newspaper, office paper, magazine, and cardboard	Source separated at drop off sites and at curb
Recycle Management Corporation	16 South Washington St Mida Industrial Park P.O. Box 777 Donora PA 15033	724-379-9535	46	Fran Minnow	tadamek@recyclingemat.com	Southwest PA and Youngstown OH	Plastics 1&2, 3 colors of glass, Tin & Aluminum cans, office paper, magazines, cardboard & news paper	Commingled with fiber separated
Recycle Management Corporation	4100 Grand Avenue, Neville Island, PA 15225	412-771-4105	23	John Swann	tadamek@recyclingemat.com	Western PA	Plastics 1&2, 3 colors of glass, tin & aluminum cans, newspaper, magazines, office paper and cardboard	Commingled with fiber separated; In process of installing single-stream sort line.

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