January 16, 2004

Mr. Darby Sprincz
City of Johnstown
Department of Public Works
401 Main Street
Johnstown, PA 15901

Subject: **Technical Assistance Project**

Dear Darby:

R. W. Beck has completed an analysis of the City's recycling programs. This analysis was performed as part of the Pennsylvania Department of Environmental Protection's Recycling Technical Assistance Program. This letter summarizes the findings of our evaluation, which included an analysis of:

- Recycling collection at the Johnstown Housing Authority (JHA) public housing complexes; and
- A pay-as-you-throw (PAYT) program for City residents.

These analyses are described in further detail in the following sections.

JHA Recycling Program

Background

The first task of this project involved the development of a recycling program for the complexes currently under management by the Johnstown Housing Authority (JHA). Johnstown city ordinance number 4535 requires all residents of single family and multi-family dwellings to recycle a specified set of materials that includes plastic bottles, clear glass, aluminum cans, steel/tin cans, and leaves. There is no established recycling program at the current time at any of the JHA complexes. However, JHA management realizes that they are required to recycle and believe in concept that a recycling program could be beneficial for the community.

JHA oversees a total of eight (8) complexes with 1,506 units. At the time of this study, the JHA complexes maintained a 93 percent occupancy rate. Details of the eight complexes are shown in Table 1.

800 N.Magnolia Avenue, Suite 300, PO Box 538817, Orlando, FL 32803-3274, Phone (407) 422-4911, Fax (407) 648-8382

Table 1
Johnstown Housing Authority Complexes

Complex	Total Units	Vacant Units	Occupancy Rate	Type of Community
Prospect	110	9	92%	Garden Townhomes
Oakhurst	400	7	98%	Garden Townhomes
Solomon	248	9	96%	Apartment Style
Cooperdale	121	2	98%	Apartment Style
Lochner Plaza	50	3	94%	Apartment Style
Vine Street	217	42	81%	High Rise Apartment
Conner Towers	240	29	88%	High Rise Apartment
Town House	120	2	98%	High Rise Apartment
Total Units	1,506	103	93%	

Private hauler Waste Management, Inc., (WM) is currently under contract with JHA to collect and dispose of refuse at all of the properties. WM supplies rearload dumpsters, which are positioned at convenient sites throughout most of the complexes. Residents are required to bring their refuse to these centralized containers for disposal. FHA personnel reported that just getting the residents to bring the trash to the dumpster areas and to place it in the dumpster can be a problem that requires constant attention.

The JHA personnel reported that they have previously tried to implement a recycling program at several of these complexes. These past programs have consisted of carts or dumpsters for specific recyclable materials placed adjacent to the refuse dumpsters in appropriate locations at each complex. These programs required additional labor hours for education and enforcement. Over time, insufficient resources were available to maintain these programs, and they were therefore discontinued.

Benchmarking

R.W. Beck contacted several public housing authorities in the Commonwealth to compile relevant details of the recycling programs that have been made available to their public housing complexes (if any). Most of the organizations contacted were within municipalities mandated to recycle by Pennsylvania's Act 101 of 1988. Table 2 summarizes the findings of this research.

Table 2
Recycling at Other Pennsylvania Public Housing Authorities

Public Housing Authority	Recycling Program	Materials Collected	Collection System
Allentown Housing Authority	Yes	OCC, #1 & #2 Plastic bottles, Aluminum Cans, Steel Cans, Glass (3 colors)	Mix of bins at curb and dumpsters in centralized locations
Chester County Housing Authority	Yes	[1]	[1]
Chester Housing Authority	No		
Delaware County Housing Authority	Yes	OCC, #1 & #2 Plastic bottles, Aluminum Cans, Steel Cans, Glass (3 colors)	Bins at curb (included in County curbside residential program)
Erie County Housing Authority	Yes	OCC, #1 & #2 Plastic bottles, Aluminum Cans, Steel Cans, Glass (3 colors)	Mix of bins at curb and dumpsters in centralized locations. Elderly tenants had recyclables stored on floor and hauled to recycling containers by Housing Authority staff.
Erie Housing Authority	Yes	OCC, #1 & #2 Plastic bottles, Aluminum Cans, Steel Cans, Glass (3 colors)	Mix of bins at curb and dumpsters in centralized locations
Warren County Housing Authority	No		
Wilkes-Barre Housing Authority	No		

[1] Currently in process of bidding recycling collection service. Contractors can suggest materials collected and collection method.

This mini benchmarking study reveals some interesting information. First, only five out of the eight authorities contacted actually have recycling programs. Second, none of the programs includes newspapers, which is curious considering that newspaper is one of the more commonly-occurring recyclable. In the housing authorities that do have programs, it was clear that each program has been tailored to suit the individual characteristics of the specific housing complexes. In all cases, the focus was on convenience to the tenants. Garden style town homes or individual dwellings generally had curbside collection in 18- to 20-gallon recycling bins. Smaller apartment buildings had distributed recycling bins to each resident, and recyclables were hauled to a centralized collection area where large carts or containers were staged for storage. These solutions were deemed to work best based on local analysis.

Although not shown in the Table above, all of the public housing authorities that offered recycling programs also had recycling education programs for the residents. Each authority emphasized that public education was the most important element of the program. Recycling education is necessary on an ongoing basis because of the transient nature of the tenants. Failure to support a recycling program in JHA complexes with sufficient public education would be expected to significantly diminish the diversion rates achieved by the program.

Recycling Diversion Potential

To estimate the quantity of refuse generated in these complexes, we assume that the average multi-family unit generates approximately five pounds per unit per day (0.91 tons per year), while the average retirement/senior citizen complex[1] generates only 3.5 pounds per unit per day (0.64 tons per year). Table 3 estimates the total refuse—including recyclables—generated JHA communities.

Table 3
Estimated Total Refuse Generation (including recyclables)

Complex	Occupied Units	Avg. Pounds per Day per Unit	Annual Tonnage
Prospect	101	5	92.2
Oakhurst	393	5	358.6
Solomon	239	5	218.1
Cooperdale	119	5	108.6
Lochner Plaza	47	5	42.9
Vine Street	175	3.5	111.8
Conner Towers	211	3.5	134.8
Town House	118	3.5	75.4
Total	1,403		1142.3

To calculate the quantity of recyclable materials that are likely to be present in the waste stream at these JHA complexes, we have developed two scenarios:

- **Basic Recyclables**: This scenario would have JHA target the following minimum recyclables: Newspaper, #1 and #2 plastic bottles; clear, green and brown glass; steel cans, and aluminum cans;
- **Max Recyclables**: In addition to all of the recyclables in the Basic scenario, the City could attempt to maximize recycling by including all marketable paper. In addition to newspaper, this scenario would include corrugated cardboard, office paper, magazine/glossy paper, and mixed paper.

To estimate the amount of recyclables that could potentially be captured under each scenario, we have relied on the State-wide Waste Composition Study performed by DEP. The composition of disposed residential waste from the Southwest Region of the State are shown in Exhibit 1. Tables 4a and 4b summarize the proportion of disposed material that contains the recyclables

[1] Vine Street, Connor Towers and Town House are known to house only senior citizens.

that would be targeted under the Basic Recyclables and Max Recyclables scenarios, respectively. Each Table shows a low, medium, and high recovery rate.

Table 4a
Potential Capture Rates for Residential Recyclables at JHA Complexes—Basic Recycling Scenario

Recyclables Material	Percentage of Recyclables	Total Recyclables (tons)	Estimated Recovery Quantity (tons)		
			Low [1]	Medium [2]	High [3]
Newspaper	7.58%	86.6	21.6	34.6	69.3
#1 PET Bottles	1.28%	14.6	3.7	5.8	11.7
#2 HDPE Bottles	1.34%	15.3	3.8	6.1	12.2
Clear Glass	1.69%	19.3	4.8	7.7	15.4
Green Glass	0.30%	3.4	0.9	1.4	2.7
Amber Glass	0.74%	8.5	2.1	3.4	6.8
Steel Cans	2.15%	24.6	6.1	9.8	19.6
Aluminum Cans	0.93%	10.6	2.7	4.2	8.5
Annual Totals		**182.9**	**45.7**	**73.2**	**146.3**
Weekly Totals		**3.5**	**0.9**	**1.4**	**2.8**

[1] Assumes a 25 percent recovery rate
[2] Assumes a 40 percent recovery rate
[3] Assumes an 80 percent recovery rate

Table 4b
Potential Capture Rates for Residential Recyclables at JHA Complexes—Max Recycling Scenario

Recyclables Material	Percentage of Recyclables	Total Recyclables (tons)	Estimated Recovery Quantity (tons)		
			Low [1]	Medium [2]	High [3]
Newspaper	7.58%	86.6	21.6	34.6	69.3
Corrugated Cardboard	4.62%	52.8	13.2	21.1	42.2
Office	1.64%	18.7	4.7	7.5	15.0
Magazine/ Glossy	2.88%	32.9	8.2	13.2	26.3
Mixed Paper	3.01%	34.4	8.6	13.8	27.5
#1 PET Bottles	1.28%	14.6	3.7	5.8	11.7
#2 HDPE Bottles	1.34%	15.3	3.8	6.1	12.2
Clear Glass	1.69%	19.3	4.8	7.7	15.4
Green Glass	0.30%	3.4	0.9	1.4	2.7
Amber Glass	0.74%	8.5	2.1	3.4	6.8
Steel Cans	2.15%	24.6	6.1	9.8	19.6
Aluminum Cans	0.93%	10.6	2.7	4.2	8.5
Annual Totals		**321.7**	**80.4**	**128.7**	**257.3**
Weekly Totals		**6.2**	**1.5**	**2.5**	**4.9**

[1] Assumes a 25 percent recovery rate
[2] Assumes a 40 percent recovery rate
[3] Assumes an 80 percent recovery rate

Note that, even if the maximum quantity of recyclables were to be captured in the JHA complexes, the weekly total quantity would be just over five tons. Based on the payload of most recycling collection vehicles, which could collect this quantity in a single load, this is a small amount of recyclables. Consequently, the most efficient collection program for these recyclables could be obtained by a competitive bidding process by local private sector haulers. This outcome is discussed more in the next section.

Table 5 highlights the range of recycling rates that could be achieved based on the projected recyclable quantities shown in Tables 4a and 4b. As shown, if JHA targets only basic recyclables and gets the lowest expected recovery rate, it may expect approximately four percent diversion. Conversely, should JHA include all marketable paper and achieve high recovery rates, a 23 percent recycling rate may be attained.

Table 5
Estimated Recycling Rates

Scenario	Percentage of Recycling Tons Available	Recycling Rate		
		Low [1]	Medium [2]	High [3]
Basic Recyclables Scenario	16%	4%	6%	13%
Max Recyclables Scenario	28%	7%	11%	23%

[1] Assumes a 25 percent recovery rate
[2] Assumes a 40 percent recovery rate
[3] Assumes an 80 percent recovery rate

Given the demographic and economic characteristics of public housing complexes, and the transient nature of their residents, for planning purposes we have assumed that the City would be able to achieve only the medium recovery rate, at best.

The weekly tons of recyclables captured are a high of 4.9 tons and a low of 0.9 tons. These tonnages are easily collected by a contractor in a single load of a recycling truck. The JHA could use either compartmentalized roll-off, front or rear load containers, Haul-All containers similar to the County collection containers, residential recycling bins, or a combination of containers and bins. The choice of bins may be dictated by the contractor selected and that contractor's individual collection method.

Conclusions and Recommendations

Implementing an effective recycling program in public housing complexes can be a challenge. Tenants of these complexes tend to be more transient and less well educated than the population at large, which contributes to lower recycling participation. Additionally, these tenants have lower median household income—with lower purchasing power, they would not be expected to consume as many recyclables as the general population.

When implementing a recycling program for the public housing complexes, it is recommended that the City design recyclables collection systems that are appropriate for each of the eight complexes. The targeted recyclables should be standardized across all properties, to allow

consistent signage and education. However, there should be different collection containers for garden apartments, townhomes, and high-rise apartments to meet the specific needs of each of these building types.

Private haulers are accustomed to developing collection solutions that meet the needs of a wide range of recycling programs. It may be possible for the City to incorporate the JHA complexes in its existing recycling collection contract with Waste Management. However, if this is not an option, it is recommended that an Invitation for Bids (IFB) or Request for Proposals (RFP) be prepared to solicit recyclables collection services from the private sector. The technical specifications section of the RFP would need to include:

- A list of the specific complexes, as well as a description of the placement of refuse containers and the available space for recycling containers of varying sizes;
- Information about the number of housing units per complex and the expected weekly recyclables generation quantity (broken down between fiber and commingled containers); and
- A summary of the quantity and type of public education (e.g., signage, fliers/brochures, on-site assistance) that would be required of the hauler in addition to just collecting the recyclables.

Although not discussed previously, the City may want to evaluate implementing an incentive-based recycling program for the JHA complexes. Such a program is in existence in Chicago, which has extensive public housing complexes scattered throughout the city. To encourage recycling in Chicago's public housing complexes, mobile recyclable buy-back units are sent through the complexes, offering residents vouchers that can be redeemed for cash in exchange for their source-separated recyclables. The mobile buy-back units are staffed by individuals who are hired from public housing neighborhoods—which provides an additional incentive to recycle through job development opportunities. The City of Philadelphia is currently considering a comparable mobile buyback program, according to the City's Recycling Director.

Finally, it is also recommended that some form of targeted recycling education be implemented in conjunction with the actual recycling collection program. Assistance in developing an appropriate program may be available from the County Recycling Coordinator.

Single Family Pay-As-You-Throw (PAYT) Program

Current Residential Collection System

The City of Johnstown provides weekly curbside refuse and recycling collection for roughly 9,000 single family units. The City has a contract with Waste Management to provide these collection services. The City also provides bulky waste collection, and leaf waste collection in the fall months.

The City's curbside recycling program includes aluminum cans, bi-metallic cans, #1 and #2 plastic bottles, and clear/green/brown glass bottles and jars. Interestingly, there are no fibers

currently collected in the curbside system. Rather, the City relies on the County drop-off program to collect newspapers, cardboard, office paper, magazines/catalogs, junk mail and phone books. In 2002, the City collected 204 tons of recyclables in its curbside program, as well as 312 tons of commercial old corrugated cardboard. An additional 561 tons of recyclable paper and other commingled containers were collected in the County drop-off program. Together, this represents a recycling rate of 5.7 percent of the 18,861 total tons of material generated by Johnstown single family residences and commercial businesses.

Each residential unit in the City is billed $59.50 by the City every six months ($119 annually) for these services, regardless of how much or how little waste is disposed or recycled.

PAYT Overview

The City has expressed a strong desire to develop a PAYT program. PAYT programs are becoming quite popular as methods to manage cost and increase recycling rates. According to *Waste Age* magazine[2], there are over 5,000 PAYT programs in the Unites States, and the Department of Environmental Protection web site reports over 200 communities in Pennsylvania that have such programs.

Also known as unit-based or variable rate pricing, customers in a PAYT system pay for municipal waste management services per unit of waste collected rather than through a fixed fee. PAYT takes into account variations in waste generation rates by charging residents or households based on the amount of refuse they place at the curb, thereby offering residents an incentive to reduce the amount of waste they generate and dispose of.

Municipalities that have implemented PAYT programs have reported a number of benefits, including:

- Waste reduction;
- Reduced waste disposal costs;
- Increased waste prevention;
- Increased participation in recycling and composting programs;
- A more equitable waste management fee structure; and
- Increased understanding of environmental issues in general.

PAYT programs encourage residents to generate less refuse by charging them based on the amount of waste placed out for disposal. Setting rates according to generation encourages residents to become more conscious of disposal habits and to look for opportunities to generate less waste or divert a greater portion of the waste stream through alternative management practices such as recycling and composting. The key is that residents become more conscientious, and thereby more understanding of environmental issues and the impact of their behavior on the environment. PAYT also provides a mechanism that ties the rate paid per

[2] November 2002 issue.

household to the level of service, similar to other utilities. Households that generate smaller amounts of refuse pay a lower rate than those generating larger amounts.

Based on available data, it is projected that the City could increase its recycling rate from the current 5.7 percent up to 30-plus percent exhibited in other municipalities with PAYT systems. This represents an increase of over 2,000 tons of recycled material, if the highest percentage was reached, and a corresponding drop in disposal quantities.

While there are clearly benefits associated with PAYT programs, there are also potential barriers/issues that must be overcome or addressed to successfully implement this system. These potential barriers/issues include:

- Illegal dumping;
- Ensuring full recovery of expenses;
- Controlling/covering administrative costs;
- Perception of increased cost to residents;
- Multi-family housing; and
- Building public consensus.

While communities throughout Pennsylvania have experienced some or all of the barriers/issues identified above, most have been able to take appropriate measures to overcome them. For example, the City of Wilkes-Barre experienced illegal disposal of household refuse in commercial dumpsters. Many businesses placed locks on their dumpsters to combat this problem. Stopping other illegal dumping may require stricter enforcement of existing ordinances and greater penalties for violations. Cost issues can be resolved with careful planning, a clear understanding of total service cost and demonstrating to the public that the program is likely to reduce the cost of service for many households. Including public input early in the process can help to build public consensus and understanding of the real benefits to the residents.

PAYT Implementation Considerations

When developing a program that will result in a significant change for users it is important to have a solid plan of action. The City of Johnstown currently offers what is essentially an unlimited service to its residents that includes weekly refuse collection, weekly recyclables collection, bulky item collection, and seasonal leaf waste collection. Suggestions of changes to this system could be met with strong public opposition, with residents feeling they are getting less service at a greater cost. Therefore, if the City decides to implement a PAYT program it will be imperative to involve the public in the process that ultimately structures the new system.

Planning the Program—It is always important to give careful consideration to potential new programs before implementing a change. An important part of this process is involving the public to solicit their input on structuring a program. Implementation of any changes will be smoother if there is public consensus in favor of the changes. Make sure the public knows and

understands what is happening, how the program will work, and what the benefits of change are for them. Use the media wisely in disseminating information as the process is taking form.

The first action should be the formation of a committee to oversee the planning and implementation of a program change. The committee's roles would include:

- Setting goals;
- Defining the system;
- Developing a public information strategy; and
- Overseeing implementation.

PAYT Rate Considerations—As mentioned in the previous section, there are multiple rate strategies for both pure and hybrid PAYT systems. Table 5 summarizes the various PAYT rate-setting strategies, with further description of each provided after the Table.

Table 5
PAYT Pricing Options

System	Rate
Proportional (linear)	Flat rate per container/bag
Variable container	Different rates for different size containers
Two-tiered	Flat fee (usually charged on a monthly basis) and flat rate per container
Multi-tiered	Flat fee (usually charged on a monthly basis) and different rates for different size containers

- **Proportional Rate System**: This is the simplest and purest form of PAYT and involves the household paying a flat price for each container of waste they place out for collection. This is the system used by Elizabethtown Borough, among others.
- **Variable Container Rate**: Under this system, a different rate is charged for different size containers. Like the proportional rate, the entire cost of the service is made up through the revenue generated on the container prices. While this system and the proportional rate system create strong incentives for residents to reduce waste, they both require that communities carefully set their rates to ensure revenue stability.
- **Two-Tiered Rate System**: In the two-tiered rate system households are assessed both a fixed fee and a per container fee. The fixed fee ensures that revenue is generated for the fixed costs while the per container fee is used to cover variable costs. Some communities use this two-tiered approach as a transition to the purer forms of PAYT described above.
- **Multi-Tiered Rate System**: In this hybrid of all the systems described above, households pay a fixed fee plus variable fees for different size containers. This is the system used by the City of Wilkes-Barre, where tax dollars are used to pay for fixed costs and two sizes of bags are available for purchase in local retail outlets. Residents that generate smaller amounts of waste have the opportunity to pay less by purchasing smaller bags and setting materials out on a weekly basis

It may not be necessary to select the preferred rate structure, but rather may be more beneficial to leave it up to the private sector haulers to bid on two or more of these structures and select the most politically acceptable (and financially manageable) one.

Selecting the Preferred System—Regardless of whether or not the City of Johnstown decides to implement a PAYT program, collection of refuse will not functionally change. The amount of refuse collected from each household may decrease, but refuse trucks will still need to drive past each residence on a weekly basis. The most important consideration is how best to structure the fees to ensure sufficient revenues to fund the operation.

It is here that an advisory committee will need to consider the goals of the change and evaluate the costs and benefits of the different options. Ultimately, the City would want a program that will be generally acceptable to the public at large.

Regardless of the form of pricing, the City will need to generate at least the cost of their contract for refuse and recyclables collection, plus any administrative or contract management costs.

Regardless of the PAYT scenario used, the City should implement controls that help to ensure proper disposal of wastes generated in the City. Under the current system, bans on burning and substantial penalties for illegal dumping (including unauthorized use of commercial dumpsters) are useful tools. Improper disposal is less likely under most hybrid scenarios. If residents are required to pay a fee, even if it is only a partial fee to cover fixed costs and purchase of bags is still required, they are more likely to use the service. However, good enforcement is still necessary to ensure compliance.

The following issues should be considered in conjunction with the PAYT program itself. These items will support the PAYT program, but without adding unreasonable cost.

- Code Enforcement - Implementing a program that ensures that all residents are recycling the materials that are required may help. Short of hiring a person dedicated to this task (which could be cost prohibitive), this would require adding this duty to the duties of an existing code enforcement officer, however, or enlisting the support of the police.
- Public Education – The City of Johnstown already provides some public education. No program is perfect, however, and the City should review its program and address any problems it discovers. It may also help to examine the frequency of dissemination and educational vehicles used to determine if greater frequency and additional outlets would help.
- Home composting - While the City provides information upon request, it should consider actively promoting home composting and grass cycling (leaving grass on the lawn) to help divert greater amounts of material from the waste stream. The City could provide training and compost bins to residents at nominal cost by: (1) obtaining a Section 902 grant to purchase home composting containers that can be distributed to residents who wish to compost at home. The City could subsidize the 10 percent that is not covered by the grant, or could charge residents for the balance; (2) providing training to residents through the master composter program of the Cooperative Extension; and (3) developing a

comprehensive composting and "Let It Lie" (grass cycling) public education program to provide information on management of yard waste at home. Development and printing of these materials is also eligible for a Section 902 grant.

Procuring PAYT from the Private Sector

Given that the City already retains WM under contract to provide collection services, there are two main options for implementing PAYT in the City:

- Renegotiate with WM to convert the current contract to a PAYT rate structure; or
- Procure PAYT-oriented collection services when the current contract expires.

One of the primary benefits of procuring private sector services to implement the PAYT system is that is places the burden of rate setting on the private hauler. In other words, private haulers who bid on the City's request for proposal (RFP) will need to calculate the fixed and variable components of the rate.

However, to allow private bidders to develop a defensible and meaningful rate, it will be necessary for the City to provide sufficient background information, such as:

- The number of single family households served;
- The required collection frequency for each material type (including seasonal requirements for leaf/yard waste);
- Quantities of materials that are collected on an annual (and monthly) basis; and
- The required disposal and/or processing facilities where collected materials are to be delivered, including tip fees (if any) for each material type.

Note that the City would not need to specify only a single rate structure for the PAYT system, but rather could retain flexinbility in how they ask for bids. For example, if the PAYT Committee was divided on the best rate structure, the City could request that bids be submitted for both rate structures under consideration and ultimately select the one that would be most effective. This would allow the City to conduct a financial analysis to compare the operational and financial impacts of each PAYT rate strategy.

Conclusions and Recommendations

The City's current recycling rate is below the Pennsylvania mandated level. Given that PAYT collection systems have been shown to increase recycling, in some cases greatly, such a system would potentially assist Johnstown meet this goal.

Given this background, the City should pursue the following steps to establish a PAYT program:

- Establish an advisory committee to evaluate PAYT and hold a series of public meetings to gain resident input;

- Develop a public education program and disseminate to residents as the switch to PAYT approaches;
- Renegotiate with its current hauler, or go out for bid on the open market when its current collecion contract expires, and require haulers to bid on two or more different PAYT rate structures to provide the City with the maximum flexibility to select the best structure;
- Assure that residents have a full range of alternatives for recycling and diverting other wastes, either through the curbside program, at local County drop-off sites, via home composting, etc.; and
- Assure that enforcement officers are aware of the switch to PAYT and the negative side effects that may occur.

It is likely that the best PAYT system will involve a two-tiered rate consisting of a fixed rate to cover the collection costs, and a per-container rate that covers the cost of disposal. The fixed rate should include base collection costs for all forms of collection, including yard waste and recyclables, and may also include some of the City's management and administrative overhead (such as billing costs). Recyclables and leaf/yard waste should be free to set out, while refuse disposal should be charged by the container.

For additional information on PAYT, there are many resources available through the PaDEP and EPA. The EPA has a PAYT hotline available at 888-EPA-PAYT and a dedicated PAYT website at www.epa.gov/payt. Resources from the PaDEP are available at www.dep.state.pa.us. Click on Recycling in the Subjects section. The PaDEP Department of Waste Minimization and Planning can be contacted for a "Pay-As-You-Throw Toolkit" by calling 717-787-7382.

Darby, I hope you find this information helpful in developing a Public Housing Recycling collection program and a Pay-as-You-Throw program in the City of Johnstown. If you have any questions, please do not hesitate to contact me at 301-607-6428.

Sincerely,

R.W. BECK, INC.

Walter Davenport
Technical Manager, Special Projects

cc: Carl Hursh, DEP
Brent Dieleman, SWANA
Tanya McCoy-Caretti, Cambria County